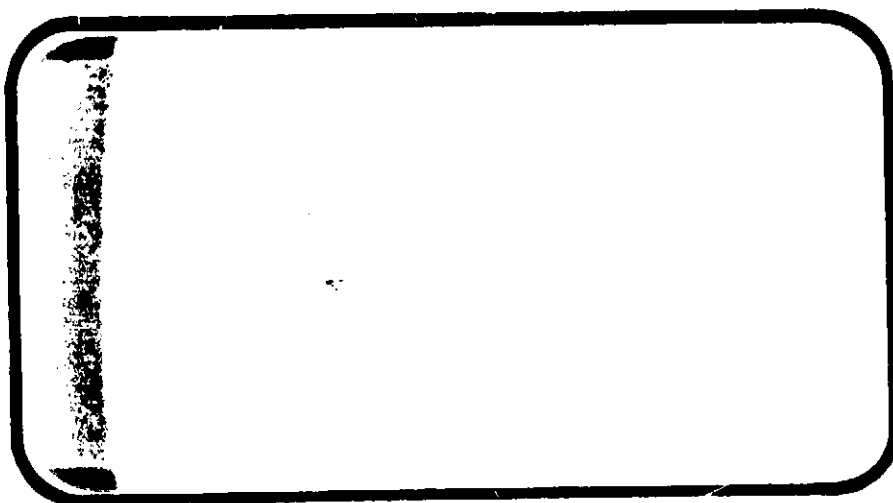


NATIONAL AERONAUTICS AND SPACE ADMINISTRATION



NASA-CR-128778) AERODYNAMIC
INVESTIGATIONS ON A 0.004 SCALE MODEL
MCR 0074 BASELINE SPACE SHUTTLE LAUNCH
VEHICLE AT MACH NUMBERS BETWEEN (Chrysler
Corp.) 400 p HC \$22.00 CSCL 22B

N73-32783

Unclas
G3/31 18745

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER
CORPORATION

August, 1973

DMS-DR-2026
NASA CR-128,778

AERODYNAMIC INVESTIGATIONS ON A 0.004 SCALE
MODEL MCR 0074 BASELINE SPACE SHUTTLE
LAUNCH VEHICLE AT MACH NUMBERS BETWEEN 0.6 AND 4.96

By

Paul Ramsey and M. K. Robertson

Prepared under NASA Contract Number NAS9-13247

by

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New Orleans, La. 70189

for

Engineering Analysis Division
Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: MSFC TWT 566
NASA Series Number: IA31F
Test Date: April 10-13, 1973

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AERODYNAMIC INVESTIGATIONS ON A 0.004
SCALE MODEL MCR 0074 BASELINE SPACE SHUTTLE
LAUNCH VEHICLE AT MACH NUMBERS BETWEEN 0.6 AND 4.96

by

Paul Ramsey* and M. K. Robertson**

ABSTRACT

This report presents results from a test of a 0.004-scale MCR 0074 Baseline Launch Configuration Space Shuttle model conducted in the NASA-MSFC 14 x 14-inch Trisonic Wind Tunnel (MSFC TWT 566). The objective of the test was to determine the effects of model parametric variations on aerodynamic static stability characteristics over a Mach number range from 0.6 to 4.96. Angles-of-attack from -10° to $+10^\circ$ at 0° sideslip and angles-of-sideslip from -10° to $+10^\circ$ at -5° , 0° , and $+5^\circ$ angle-of-attack were investigated. The basic configuration investigated was the integrated vehicle consisting of the orbiter, an external tank, and two solid rocket boosters. It was designated O₃T₉S₃. The test program consisted of 104 runs and was conducted from 10 April through 13 April 1973 and required approximately 55 hours to complete. The NASA series number of this test is IA31F.

* NASA/MSFC

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SCHEDULE OF COEFFICIENTS PLOTTED:

A: CN, CLM, CABT, CAF, XCP/L vs. ALPHA
CN vs. CLM

CNALFA, CLMALF, CNAFO, CLMAFO, CAFAFO, CABAFO, XAC/L vs. MACH

CY, CYN, CEL, YCP/L vs. BETA
CYBETA, CYNBET, CELBET, YAC/L vs. MACH

B: CY, CYN, CEL, YCP/L vs. BETA
CYBETA, CYNBET, CELBET, YAC/L vs. MACH

C: CN, CLM, CABT, CAF, XCP/L vs. ALPHA
CN vs. CLM
CAFM8, CLM8, CNM8, CAFAFO, CLMAFO, CNAFO vs. MACH
CAF8, CLM8, CN8 vs. MACH
CY, CYN, CEL, YCP/L vs. BETA
D: CY, CYN, CEL vs. ALPHA
CY, CYN, CEL, YCP/L vs. BETA

NOMENCLATURE

General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
P		pressure; N/m^2 , psf
q	Q(NSM) Q(SPF)	dynamic pressure; $1/2\rho V^2$, N/m^2 , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees

Reference & C.G. Definitions

A_b		base area; m^2 , ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
l_{REF}	LREF	reference length m, ft
\bar{c}		
S	SREF	wing area or reference area; m^2 , ft^2
	MRP	moment reference point
XCG	XMRP	moment reference point on X axis, measured from external tank nose
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream
u	uncorrected

**NOMENCLATURE
(CONTINUED)**

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(P_b - P_\infty)/qS; (C_{A_{B_0}} + C_{A_{B_S}} + C_{A_{B_E}})$
C_{A_f}	CAF	forebody axial force coefficient; $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CEL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

ADDITIONS TO NOMENCLATURE FOR MSFC TEST 566

<u>SYMBOL</u>	<u>PLOT SYMBOL</u>	<u>DEFINITION</u>
BMC		balance moment center
MAC		mean aerodynamic chord
Z_0		separation distance between orbiter and tank, measured at the aft tie-downs; in.
X_B		solid rocket booster longitudinal location on external tank, zero when SRB is in baseline position; in.
δ_r	RUDDER	rudder - trailing edge to the left
ϕ_s	PHI	solid rocket booster (SRB) circumferential position angle, measured from the external tank horizontal centerline; degrees
L_B	LBODY	orbiter body length; in, ft, m
i_o	ORBINC	orbiter incidence angle with relation to external tank, positive when tail down; deg.
i_b		orbiter base slant angle, 12°
X_2		axial moment arm for orbiter base drag correction, 5.231 inches model scale
Z_1		vertical moment arm for orbiter base drag correction, 1.383 inches model scale
C_{NBO}	CNBO	the base normal force coefficient of orbiter.
$C_{N\alpha}$	CNALFA	$\left(\frac{dC_N}{d\alpha}\right)$ the change in normal force coefficient with varying angle of attack, 1/deg.
$C_{m\alpha}$	CIMALF	$\left(\frac{dC_m}{d\alpha}\right)$ the change in pitching moment coefficient with varying angle of attack, 1/deg.
$C_{y\beta}$	CYBETA	$\left(\frac{dC_y}{d\beta}\right)$ the change in side force coefficient with varying sideslip angle, 1/deg.
$C_{n\beta}$	CYNBET	$\left(\frac{dC_n}{d\beta}\right)$ the change in yawing moment coefficient with varying sideslip angle, 1/deg.
$C_{l\beta}$	CLLBET	$\left(\frac{dC_l}{d\beta}\right)$ the change in rolling moment coefficient with varying sideslip angle, 1/deg.

$C_{N_{\alpha=0^\circ}}$	CNAFO	the normal force coefficient measured at an angle of attack of zero degrees.
$C_{m_{\alpha=0^\circ}}$	CIMAFO	the pitching moment coefficient measured at an angle of attack of zero degrees.
$C_{AF_{\alpha=0^\circ}}$	CAFAFO	the forebody axial force coefficient measured at an angle of attack of zero degrees.
$C_{AB_{\alpha=0^\circ}}$	CABAFO	the base axial force coefficient measured at an angle of attack of zero degrees.
$C_{N_{\alpha=8^\circ}}$	CN8	the normal force coefficient measured at an angle-of-attack of 8 degrees.
$C_{m_{\alpha=8^\circ}}$	CLM8	the pitching moment coefficient measured at an angle-of-attack of 8 degrees.
$C_{Af_{\alpha=8^\circ}}$	CAf8	the forebody axial force coefficient measured at an angle-of-attack of 8 degrees.
$C_{N_{\alpha=-8^\circ}}$	CNM8	the normal force coefficient measured at an angle-of-attack of minus 8 degrees.
$C_{m_{\alpha=-8^\circ}}$	CLMM8	the pitching moment coefficient measured at an angle-of-attack of minus 8 degrees.
$C_{Af_{\alpha=-8^\circ}}$	CAfM8	the forebody axial force coefficient measured at an angle-of-attack of minus 8 degrees.
C_{AB_0}	CABO	the base axial force coefficient of the orbiter.
C_{AB_S}	CABS	the base axial force of the two 142-inch diameter SRB (solid-rocket booster).
C_{AB_E}	CABE	the base axial force of the external tank.
C_{AB_t}	CABT	total base axial force coefficient of the model; ($C_{AB_t} = C_{AB_0} + C_{AB_E} + C_{AB_S}$)
$\frac{x_{AC}}{l_B}$	XAC/L	the longitudinal position of the aerodynamic center or neutral point of static longitudinal stability as a fraction of orbiter body length, measured from the external tank nose $\left[XCG/l_B - (C_{m_\alpha}/C_{N_\alpha})(l_{ref}/l_B) \right]$
x_{CP}/l_B	XCP/L	the longitudinal position of the center of pressure as a fraction of orbiter body length, measured from the external tank nose $\left[\frac{XCG}{l_B} - \left(\frac{C_m}{C_N} \right) \left(\frac{l_{ref}}{l_B} \right) \right]$

YAC/l_B YAC/L

the longitudinal position of the aerodynamic center or neutral point of static lateral stability, as a fraction of orbiter body length, measured from the external tank nose, $\left[\frac{XCG}{l_B} - \left(\frac{C_{n\beta}}{C_{y\beta}} \right) \left(\frac{b}{l_B} \right) \right]$

YCP/l_B YCP/L

the longitudinal position of the center of pressure of static lateral stability as a fraction of orbiter body length, measured from the external tank nose;

$$\left[\frac{XCG}{l_B} - \left(\frac{C_n}{C_y} \right) \left(\frac{b}{l_B} \right) \right]$$

CONFIGURATIONS INVESTIGATED

The basic configuration tested consisted of the orbiter, external tank, and two solid rocket boosters, and was designated $O_3T_9S_3$. The other configuration investigated was $O_3T_9S_3U_5$. Each of the various components is completely described by the Component Description Sheets, Table 1. Brief descriptions of each component are presented below.

- O_3 MCR 0074 Baseline Orbiter less abort solid rocket motors
- T_9 324-inch diameter External Tank with ogive nose
- S_3 142-inch diameter Solid Rocket Motor with 18° nose cone
- U_5 Aft interstage structure consisting of tie-downs among tank, orbiter, and SRBs.

The O_3 Orbiter model consists of several parts and may be represented as $B_{10}C_5D_7F_4M_3W_{87}E_{18}V_5R_5$. These parts are defined as follows:

- B_{10} Double delta wing fuselage with 57.0 in. radius nose
- C_5 Canopy
- D_7 Manipulator housing for lightweight orbiter
- F_4 Body flap
- M_3 OMS pods for lightweight orbiter
- W_{87} Double delta wing for lightweight orbiter
- E_{18} Elevon
- V_5 Vertical tail for lightweight orbiter
- R_5 Rudder

The ET and the SRB were not broken down into subassemblies for this test.

The MCR 0074 Baseline Launch Vehicle model provides the capability for testing control effectiveness, parametric variations, and several different

orbiter/tank/SRB combinations. The various test situations that were investigated are as follows:

$$\begin{aligned} i_o &= -0.5^\circ, 0.5^\circ \text{ (nom.)}, \text{ and } 1.5^\circ \\ z_o &= 0.136 \text{ in.} \\ x_s &= 0 \text{ in. (nom.) and } 0.4 \text{ in. forward} \\ \delta_r &= 0^\circ \text{ (nom.) and } -10^\circ \\ \alpha &= -10^\circ \text{ to } 10^\circ \text{ at } \beta = 0^\circ \\ \beta &= -10^\circ \text{ to } 10^\circ \text{ at } \alpha = -5^\circ, 0^\circ, \text{ and } 5^\circ \end{aligned}$$

The model is a 0.004-scale representation of the MCR 0074 Baseline Launch Configuration Space Shuttle. The general arrangement of the model is shown in Figure 2. The orbiter model is number NAR3, and the tank/SRB combination is NASA model number 451. All of the model parts were built according to MCR 0074 Baseline drawings by Rockwell, dated 15 January 1973.

General arrangements of the orbiter, external tank, and SRB are presented in Figures 3, 4, and 5. Views of the aft interstage structure are presented in Figure 6. Photographs of the tunnel installation are presented in Figures 8 and 9.

The dimensions of each of the model parts are presented in the Component Description Sheets, Table 1. A run schedule is presented in Table 2, the Data Set Collation Sheets. The average tunnel test conditions for this schedule are presented in Table 3.

TEST FACILITY DESCRIPTION

The Marshall Space Flight Center 14" x 14" Transonic Wind Tunnel is an intermittent blowdown tunnel which operates by high pressure air flowing from storage to either vacuum or atmospheric conditions. A Mach number range from .2 to 5.85 is covered by utilizing two interchangeable test sections. The transonic section permits testing at Mach 0.20 through 2.50, and the supersonic section permits testing at Mach 2.74 through 5.85. Mach numbers between .2 and .9 are obtained by using a controllable diffuser. The range from .95 to 1.3 is achieved through the use of plenum suction and perforated walls. Mach numbers of 1.44, 1.93 and 2.50 are produced by interchangeable sets of fixed contour nozzle blocks. Above Mach 2.50 a set of fixed contour nozzle blocks are tilted and translated automatically to produce any desired Mach number in .25 increments.

Air is supplied to a 6000 cubic foot storage tank at approximately -40°F dew point and 500 psi. The compressor is a three-stage reciprocating unit driven by a 1500 hp motor.

The tunnel flow is established and controlled with a servo actuated gate valve. The controlled air flows through the valve diffuser into the stilling chamber and heat exchanger where the air temperature can be controlled from ambient to approximately 180°F. The air then passes through the test section which contains the nozzle blocks and test region.

Downstream of the test section is a hydraulically controlled pitch sector that provides a total angle of attack range of 20° ($\pm 10^\circ$). Sting offsets are available for obtaining various maximum angles of attack up to 90°.

DATA REDUCTION

All model forces and moments were resolved in the body axis system and are presented in the form of non-dimensionalized coefficients. (See the axis system diagram presented in Figure 1.

The longitudinal forces and moments presented in the data plots have been corrected for orbiter base drag. It was assumed, due to the slanted base of the orbiter, that orbiter base drag acted along an axis inclined 12° to the model centerline; therefore, it had both a normal and an axial component. Both of these components were accounted for when computing CN, CLM, or CAF. The equations were as follows:

$$\begin{aligned} CN &= CN - CNBO \\ CLM &= CLM + CNBO \frac{X_2}{LREF} - CABO \frac{Z_1}{LREF} \end{aligned}$$

The reference dimensions used for data reduction are given in Table 4. The Moment Reference Point (MRP) is located on the external tank center line at the orbiter nose as shown in Figure 2. The Balance Moment Center (BMC) is also on the external tank centerline, 2.742 inches from the base of the tank. Therefore, the MRP is 1.998 inches forward of the BMC.

Pressures in the individual component base region were monitored by pressure orifices as shown in Figure 7. Only three data channels were available for recording these data; therefore, the tubes leading from the Orbiter and ET were "TIED" into separate and independent systems. The orbiter base region contained three orifices; the ET two; and the SRB one. The respective component base pressures were summed and averaged for computational operations for determining axial force contribution due to base

pressure. Base areas presented in Table 5 were employed, as shown below, to determine the component and integrated vehicle base axial force coefficient:

$$C_{AB_O} = 1/3 \sum C_{P_O} \cdot A_{b_O}/S$$

$$C_{AB_E} = 1/2 \sum C_{P_E} \cdot A_{b_E}/S$$

$$C_{AB_S} = C_{P_S} \cdot A_{b_S}/S$$

hence

$$C_{ABT} = C_{AB_O} + C_{AB_E} + C_{AB_S}$$

$$C_{AF} = C_{AT} - C_{ABT}$$

No base axial force effects were applied to the lateral-directional coefficients. All data were corrected to incorporate weight tares and sting deflection misalignment.

Table 1
COMPONENT DESCRIPTION SHEETS

MODEL COMPONENT: Body B10

GENERAL DESCRIPTION: Double Delta Wing Fuselage Per Lines VL70-000093,
with 57.0 in Radius Nose.

2A Configuration Lt. Wt. Orbiter

Scale Model = .004

DRAWING NUMBER: V172-000061
VL70-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, in.	<u>1328.3</u>	<u>5.313</u>
Max. Width $X_{0.560}$ to $X_{0.1307}$	<u>216.0</u>	<u>0.864</u>
Max. Depth	<u>239.0</u>	<u>0.956</u>
Fineness Ratio	<u>5.495</u>	<u>5.495</u>
Area, FT^2		
Max. Cross-Sectional	<u>319.556</u>	<u>0.005</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table 1. (Cont.)

MODEL COMPONENT: Canopy - C5

GENERAL DESCRIPTION: 2A Configuration Per NR Lines VL70-000092.

Scale Model = .004

DRAWING NUMBER: VL70-000092

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Sta. Fwd Bulkhead	<u>391.00</u>	<u>1.564</u>
Sta. T.E.	<u>560.0</u>	<u>2.240</u>
Canopy Intersects Body ML	<u>391.00</u>	<u>1.564</u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table 1. (Cont.)

MODEL COMPONENT: Manipulator Housing D-7

GENERAL DESCRIPTION: 2A Configuration, Light WT. Orbiter Per Lines
VL70-000093

Scale Model = .004

DRAWING NUMBER: VL70-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, in.	<u>881.00</u>	<u>3.524</u>
Max. Width, in.	<u>51.00</u>	<u>0.204</u>
Max. Depth, in.	<u>20.00</u>	<u>0.080</u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
g Fuselage, BP = 0.0 WP = 500.0 INFS X _o 426.0 to 1307.0		

Table 1. (Cont.)

MODEL COMPONENT: F4 Body Flap

GENERAL DESCRIPTION: 2A Configuration Per NR Lines VL70-000094 "A"

Scale Model = .004

DRAWING NUMBER: VL70-000094A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, in.	<u>84.70</u>	<u>0.3388</u>
Max. Width, in.	<u>265.00</u>	<u>1.060</u>
Max. Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area		
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform, ft ²	<u>142.63715</u>	<u>0.002282</u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table 1. (Cont.)

MODEL COMPONENT: OMS PODS-M3

GENERAL DESCRIPTION: 2A Light WT Configuration; per MC120074,

Per NR Lines VL70-000094.

Scale Model = .004

DRAWING NUMBER:

VL70-000094

DIMENSIONS:

FULL-SCALE

MODEL SCALE

Length, in.

346.0

1.440

Max. Width, in.

108.0

0.432

Max. Depth, in.

72.8

0.291

Fineness Ratio

Area

Max. Cross-Sectional

Planform

Wetted

Base

of OMS POD

$$\begin{aligned} \text{WP} &= 463.9 \text{ inches FS; WP } 400.0 + 63.9 = 463.90 \text{ INFS} \\ &\quad 1.600 + .2556 = 1.8556 \text{ INMS} \end{aligned}$$

BP = 80.0 in. FS; 0.320 INMS

From Fuselage Station 1214.0 to 1560 INFS = 346.0 INFS
4.856 to 6.240 = 1.384 INMS

Table 1. (Cont.)

MODEL COMPONENT: Wing W-87 New Light WeightGENERAL DESCRIPTION: Orbiter Configuration per lines VL70-000093

Scale Model = .004

DRAWING NUMBER:

VL70-000093

DIMENSIONS:

FULL-SCALE

MODEL SCALE

TOTAL DATA

Area, FT ² (W.R.P.)		
Planform	2689.38	0.043
Wetted	--	--
Span (equivalent), FT	77.12	0.308
Aspect Ratio	2.214	2.214
Rate of Taper	1.176	1.176
Taper Ratio	0.209	0.209
Dihedral Angle, degrees @ 75.33% element line	3.860	3.860
Incidence Angle, degrees @ 42.5% to 1.00%	3.000	3.000
Aerodynamic Twist, degrees	--	--
Toe-In Angle	--	--
Cant Angle	--	--
Sweep Back Angles, degrees		
Leading Edge	44.873	44.873
Trailing Edge	-10.242	-10.242
0.25 Element Line	35.050	35.050
Chords:		
Root (Wing Sta. 0.0)	690.19	2.761
Tip, (equivalent)	144.30	0.577
MAC	476.76	1.907
Fus. Sta. of .25 MAC	1136.12	4.544
W.P. of .25 MAC	289.44	1.158
B.L. of .25 MAC	181.03	0.724
Airfoil Section		
Root		
Tip		

EXPOSED DATA

Area, FT ²	1746.87	6.987
Span, (equivalent), FT	59.16	0.237
Aspect Ratio	2.004	2.004
Taper Ratio	0.256	0.256
Chords		
Root	562.77	2.251
Tip	144.30	0.577
MAC	394.81	1.579
Fus. Sta. of .25 MAC	1185.17	4.741
W.P. of .25 MAC	291.56	1.166
B.L. of .25 MAC	250.54	1.002
LEADING EDGE CUFF (data for (1) side)		
Plan form area, FT ² (BP 108.0)	120.333	0.0019
L.E. Intersect Fus ML @ STA	560.0	2.240
L.E. Intersects Wing @ STA	1035.0	4.140

Table 1. (Cont.)

MODEL COMPONENT: Elevon E-18GENERAL DESCRIPTION: 2A Configuration Per W-87, NR Lines VL70-000093Data for (1) of (2) SidesModel Scale = .004DRAWING NUMBER:VL70-000093

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area, FT ²	<u>205.517</u>	<u>0.0033</u>
Span (equivalent), in.	<u>353.34</u>	<u>1.413</u>
Inb'd equivalent chord	<u>114.78</u>	<u>0.459</u>
Outb'd equivalent chord	<u>55.00</u>	<u>0.220</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At Outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>-10.02</u>	<u>-10.02</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hinge line), FT ³	<u>1548.07</u>	<u>0.00010</u>
Product of area moment		

Table 1. (Cont.)

MODEL COMPONENT: Vertical Tail V5 (Light Wt. Orbiter Config)GENERAL DESCRIPTION: Center Line Vertical Tail on the Double Delta Configuration with Double Wedge Airfoil and Rounded Leading Edge, TotalData Includes Void Area Listed Below Scale Model = .004DRAWING NUMBER:VL70-000095DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA

Area, FT ²	386.05	0.006
Void (included above), FT ²	13.17	0.0002
Blanketed included above, FT ²	12.67	0.0002
Span (equivalent), FT	24.37	0.097
Aspect Ratio	1.590	1.590
Rate of Taper	0.507	0.507
Taper Ratio	0.426	0.426
Dihedral Angle, degrees	--	--
Incidence Angle, degrees	--	--
Aerodynamic Twist, degrees	--	--
Toe-In Angle	0.0	0.0
Cant Angle	0.0	0.0
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.249
0.25 Element Line	41.130	41.130
Chords:		
Root (Wing Sta. 0.0)	257.99	1.032
Tip, (equivalent)	109.78	0.439
MAC	193.84	0.775
Fus. Sta. of .25 MAC	1473.64	5.895
W.P. of .25 MAC	647.31	2.589
B.L. of .25 MAC	0.0	0.0
Airfoil Section		
Root		
Tip		

EXPOSED DATA

Area		
Span, (equivalent)		
Aspect Ratio		
Taper Ratio		
Chords		
Root		
Tip		
MAC		
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		

*Void area noted is the area located at lower aft portion of tail surface.

Table 1. (Cont.)

MODEL COMPONENT: Rudder R5GENERAL DESCRIPTION: 2A Configuration Per NR Lines VL70-000095Scale Model - .004DRAWING NUMBER: VL70-000095

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area, FT^2	<u>98.67</u>	<u>0.0016</u>
Span (equivalent), in.	<u>201.0</u>	<u>0.804</u>
Inb'd equivalent chord	<u>91.585</u>	<u>0.366</u>
Outb'd equivalent chord	<u>50.833</u>	<u>0.203</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83314</u>	<u>34.83314</u>
Tailing Edge	<u>26.24915</u>	<u>26.24915</u>
Hingeline	<u>34.83314</u>	<u>34.83314</u>
Area Moment (Normal to hinge line), FT^3	<u>526.125</u>	<u>0.00003</u>
Product of area and mean chord		

Table 1. (Cont.)

MODEL COMPONENT: S3 Booster Solid Rocket Motor

GENERAL DESCRIPTION: 2A Configuration Per NR Lines VL77-000012 and

VL72-000061B

Body of Revolution, Data for (1) of (2) Sides

Scale Model = .004

DRAWING NUMBER: VL77-000012

Data for (1) of (2) Sides

DIMENSIONS:

	<u>THEORETICAL</u>		<u>ACTUAL MEASURED</u>
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1758.00</u>	<u>7.032</u>	<u>7.034</u>
Max. Width	<u>142.00</u>	<u>0.568</u>	<u>0.568</u>
Max. Depth	<u>259.00</u>	<u>1.036</u>	<u>1.035</u>
Fineness Ratio	<u>6.788</u>	<u>6.788</u>	<u>6.79</u>
Area			
Max. Cross-Sectional	<u>109.978</u>	<u>0.00176</u>	<u></u>
Planform	<u></u>	<u></u>	<u></u>
Wetted	<u></u>	<u></u>	<u></u>
Base	<u>365.870</u>	<u>0.00585</u>	<u></u>

REF

FS (Orbiter) 0.00 = 751.0 in. ET = 202.0 BSRM

WP (BSRM) = 400 - 344.413 = 55.587 INFS

BP (Orbiter) 0.00 = 243.0 BSRM

Table 1. (Cont.)

MODEL COMPONENT: External Tank T9

GENERAL DESCRIPTION: 2A Configuration Per NR Lines VL78-000018 and VL72-000061B;

Body of Revolution

Scale Model = .004

DRAWING NUMBER: VL78-000018

<u>DIMENSIONS:</u>	<u>THEORETICAL</u>		<u>ACTUAL MEASURED</u>
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1858.00</u>	<u>7.304</u>	<u>7.289</u>
Max. Width	<u>324.00</u>	<u>1.296</u>	<u>1.296</u>
Max. Depth	<u> </u>	<u> </u>	<u> </u>
Fineness Ratio	<u>5.74</u>	<u>5.64</u>	<u>5.62</u>
Area			
Max. Cross-Sectional	<u>572.555</u>	<u>0.00916</u>	<u> </u>
Planform	<u> </u>	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>	<u> </u>
Base	<u>572.555</u>	<u>0.00916</u>	<u> </u>

REF

FS (Orbiter) 0.00 = TANK Station 635.0 INFS

WP (ET) = 400 - 344.413 = 55.587 INFS

BP (Orbiter) 0.00 = 0.00 ET

Table 1. (Concluded)

MODEL COMPONENT: U5 Interstage Structure

GENERAL DESCRIPTION: The aft tie-downs that support the SRBs and the orbiter
on the external tank.

Scale Model = 0.004

DRAWING NUMBER: V172-000061

<u>DIMENSIONS:</u>	<u>THEORETICAL</u>		<u>ACTUAL MEASURED</u>
	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>	<u>MODEL SCALE</u>
Length	_____	_____	_____
Max. Width	_____	_____	_____
Max. Depth	_____	_____	_____
Fineness Ratio	_____	_____	_____
Area			
Max. Cross-Sectional	_____	_____	_____
Planform	_____	_____	_____
Wetted	_____	_____	_____
Base	_____	_____	_____

Table 2. TEST MSFC TWT 566 DATA SET COLLATION SHEET

(AA-6/IA31F)

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		PARAMETERS/VALUES				NO. OF RUNS	MACH NUMBERS (OR ALTERNATE INDEPENDENT VARIABLE)											
		a	B	L ₀	Z ₀	X ₃	φ ₂₁		0.6	0.8	0.9	1.0	1.05	1.10	1.25	1.46	1.96	2.99	3.5	4.96
R81001	O ₃ T ₉ S ₃	A	0	0.5	0.134	0	90°	12	55/0	56/0	57/0	58/0	59/0	60/0	61/0	40/0	27/0	16/1	17/1	18/1
02		O	B	0.5				12	84/0	83/0	82/0	81/0	80/0	79/0	78/0	39/0	28/0	15/0	14/0	13/0
03		A	0	-0.5				7	51/0		52/0		53/0		54/0	37/0	35/0			26/0
04		O	B	-0.5				7	85/0		86/0		87/0		88/0	38/0	34/0			25/0
05		A	0	1.5				7	50/0		49/0		48/0		47/0	46/0	34/0			23/0
06		O	B	1.5				7	92/0		91/0		90/0		89/0	45/0	33/0			24/0
07		5	B	0.5				6			93/0		94/0		95/0	100/0		101/0	102/0	
08		-5	B	0.5				6			98/0		97/0		96/0	99/0		104/0	103/0	
09		A	0	0.5		0.4		7	65/0		64/0		63/0		62/0	41/0	30/0			22/0
10		O	B	0.5		0.4		7	73/0		72/0		71/0		70/0	42/0	29/0			21/0
11		A	0	0.5		0	90°-10°	7	66/0		67/0		68/0		69/0	43/0	31/0			19/0
12		O	B	0.5		1	90°-10°	7	74/0		75/0		76/0		77/0	44/0	32/0			20/0
13	O ₃ T ₉ S ₃ U ₅	A	0	0.5			90°	6	1/0		2/0		3/0		4/1		10/0			11/0
14		O	B	0.5				6	8/0		7/0		6/0		5/0		9/0			12/0

1 7 13 19 25 31 37 43 49 55 61 67 7576 10
 CN KLM CY CYN CBL CAF CNO CABD CABS CABE IDPVAR(1) IDPVAR(2) IDV

COEFFICIENTS:

α or β

SCHEDULES

α RANGE: $A = -10^\circ t_0 + 10^\circ (\Delta\alpha = 2^\circ)$
 β RANGE: $B = -10^\circ t_0 + 10^\circ (\Delta\beta = 2^\circ)$

TEST : MSFC TWT 566

TABLE 3.

DATE : April, 1973

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)		DYNAMIC PRESSURE (pounds/sq. inch)	TOTAL	
				PRESS. (psi)	TEMP. (°F)
0.60	4.9×10^6		4.33	22	105
0.80	5.9		6.45	22	102
0.90	6.2		7.36	22	103
1.00	6.5		8.13	22	103
1.05	6.5		8.44	22	107
1.10	6.7		8.73	22	101
1.25	6.7		9.28	22	102
1.46	6.6		9.47	22	99
1.96	6.9		10.25	28	110
2.99	4.1		5.19	30	143
3.48	6.3		6.86	60	147
4.96	5.0×10^6		3.07	90	131

BALANCE UTILIZED: MSFC 232 - Coefficient tolerance @ $q = 10$ psi

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF	<u>300 lbs.</u>	<u>± 1.50 lbs.</u>	<u>± 0.024</u>
SF	<u>143 lbs.</u>	<u>± 0.72 lbs.</u>	<u>± 0.012</u>
AF	<u>50 lbs.</u>	<u>± 0.25 lbs.</u>	<u>± 0.004</u>
PM	<u>400 in.-lbs.</u>	<u>± 2.00 in.-lbs.</u>	<u>± 0.006</u>
RM	<u>100 in.-lbs.</u>	<u>± 0.50 in.-lbs.</u>	<u>± 0.002</u>
YM	<u>192 in.-lbs.</u>	<u>± 0.96 in.-lbs.</u>	<u>± 0.003</u>

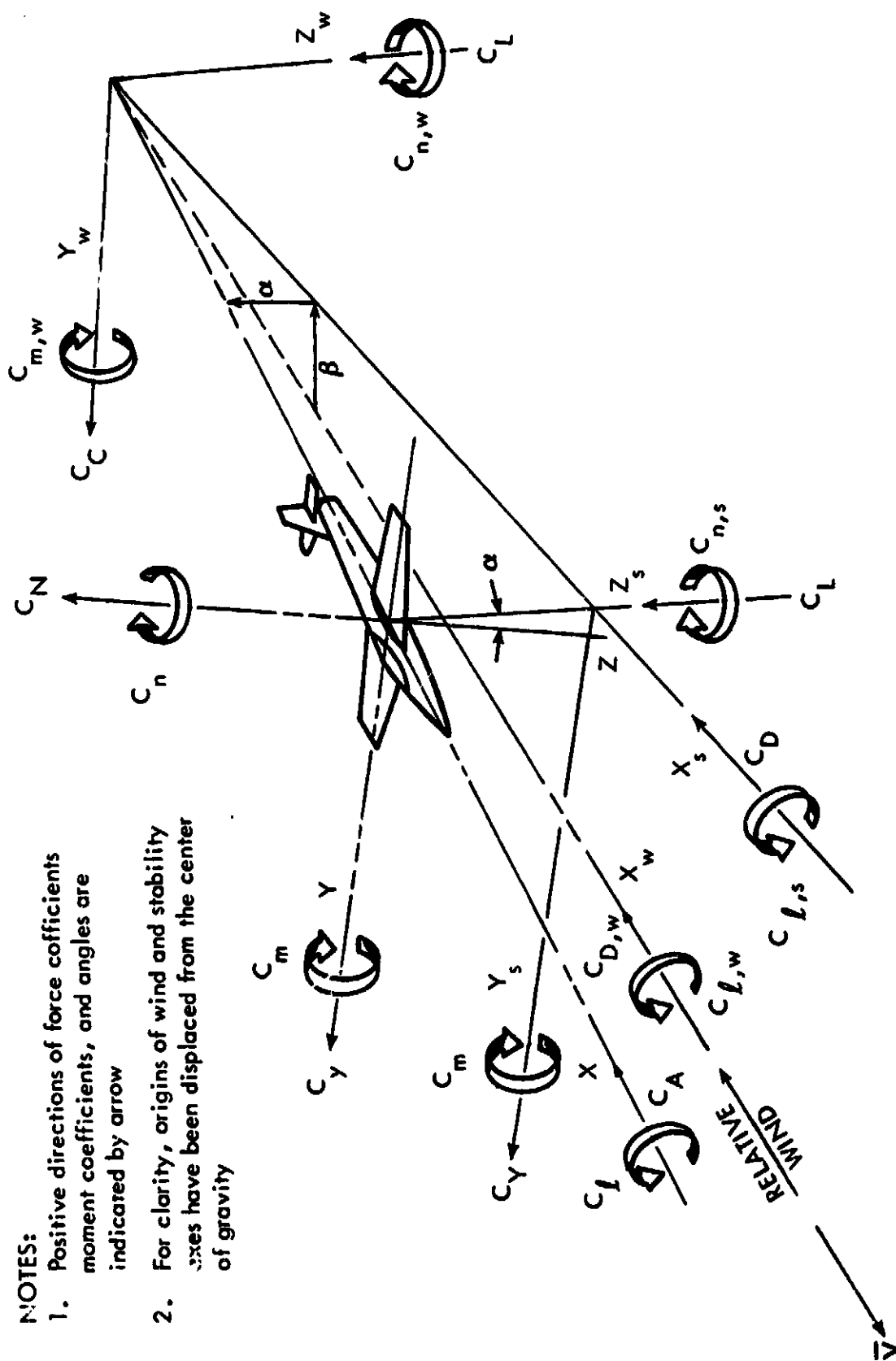
COMMENTS: Accuracy based on $\pm 0.5\%$ of balance capacity.

Table 4
REFERENCE DIMENSIONS

<u>PARAMETER</u>	<u>SYMBOL</u>	<u>FULL SCALE</u>	<u>0.004-SCALE</u>
Reference area	S_{ref}	2690 ft ²	6.198 in. ²
Reference length	l_{ref}	1328 in.	5.313 in.
Reference span	b_{ref}	1328 in.	5.313 in.
Orbiter base area	A_{bo}	427.8 ft ²	0.9857 in. ²
External Tank base area	A_{bE}	572.55 ft ²	1.319 in. ²
SRB base area (1 SRB)	A_{bS}	365.87 ft ²	0.843 in. ²
BMC location (from base of ET)			2.742 in.
MRP location (forward of the BMC)			1.998 in.

Table 5
BASE AREAS

<u>CONFIGURATION</u>	A_{bo} (in. ²)	A_{bE} (in. ²)	A_{bS} (in. ²) (one SRB)
$O_3T_9S_3$	0.9857	1.319	0.843
$O_3T_9S_3U_5$	0.9857	1.319	0.843



- NOTES:
1. Positive directions of force coefficients moment coefficients, and angles are indicated by arrow
 2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

Figure 1. - Axis Systems.

ALL DIMENSIONS ARE INCHES MODEL SCALE

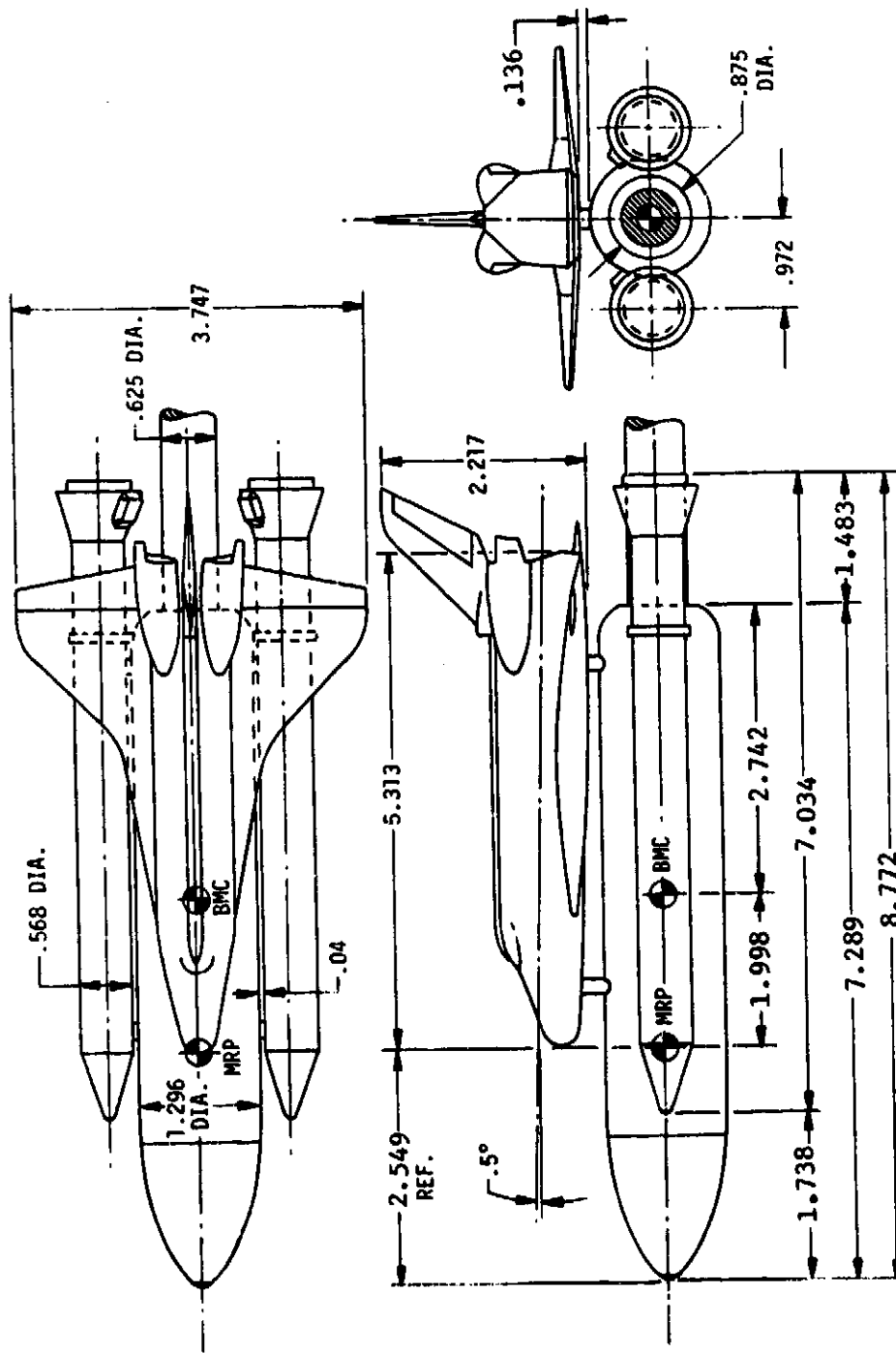
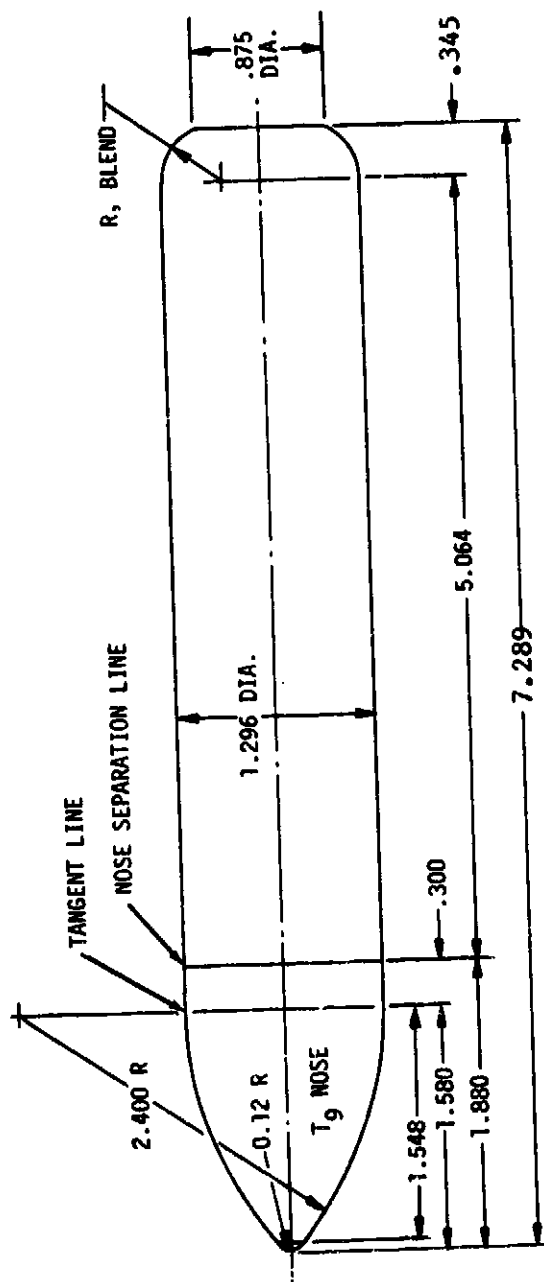


Figure 2. - General Arrangement of the Model Configuration O₃T₉S₃.



ALL DIMENSIONS ARE
INCHES MODEL SCALE

Figure 4. - General Arrangement of the External Tank T₉.

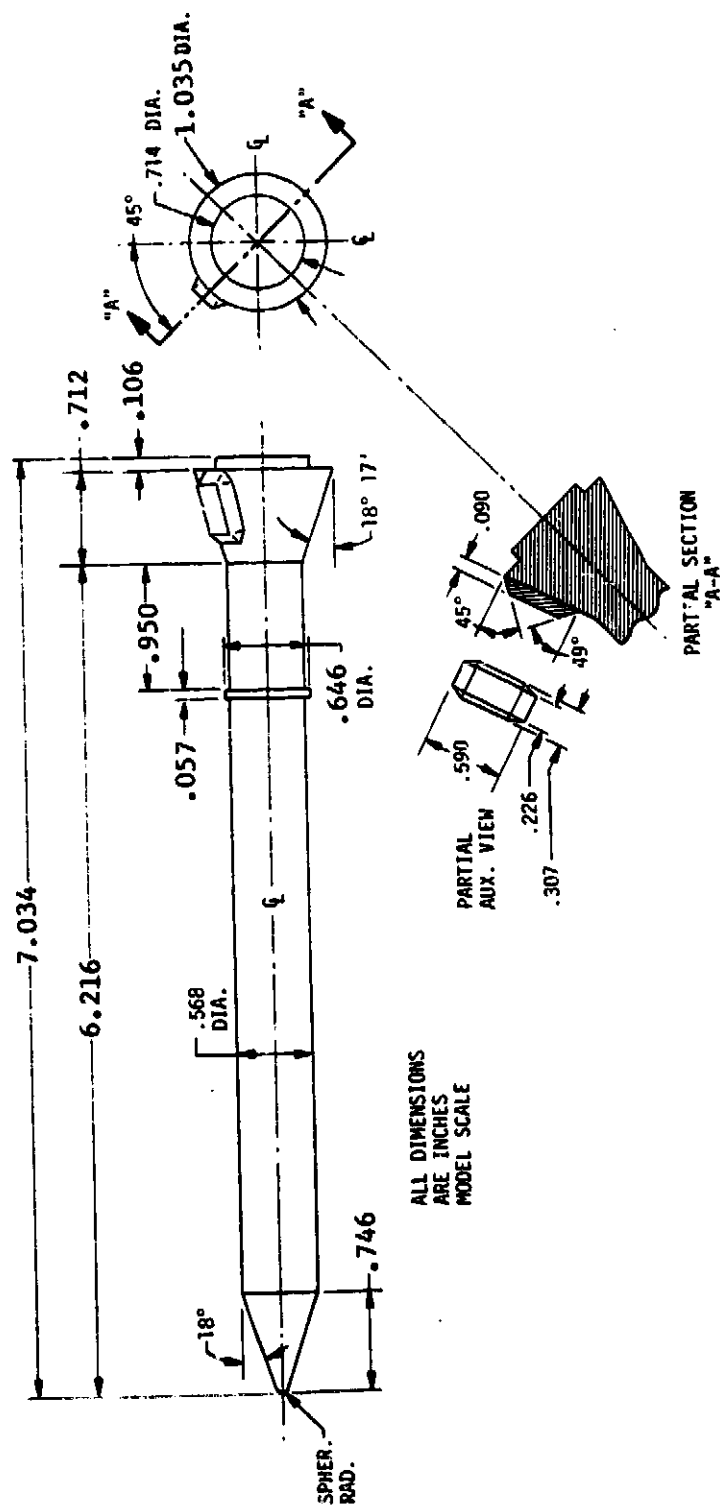


Figure 5. - General Arrangement of the SRB S3.

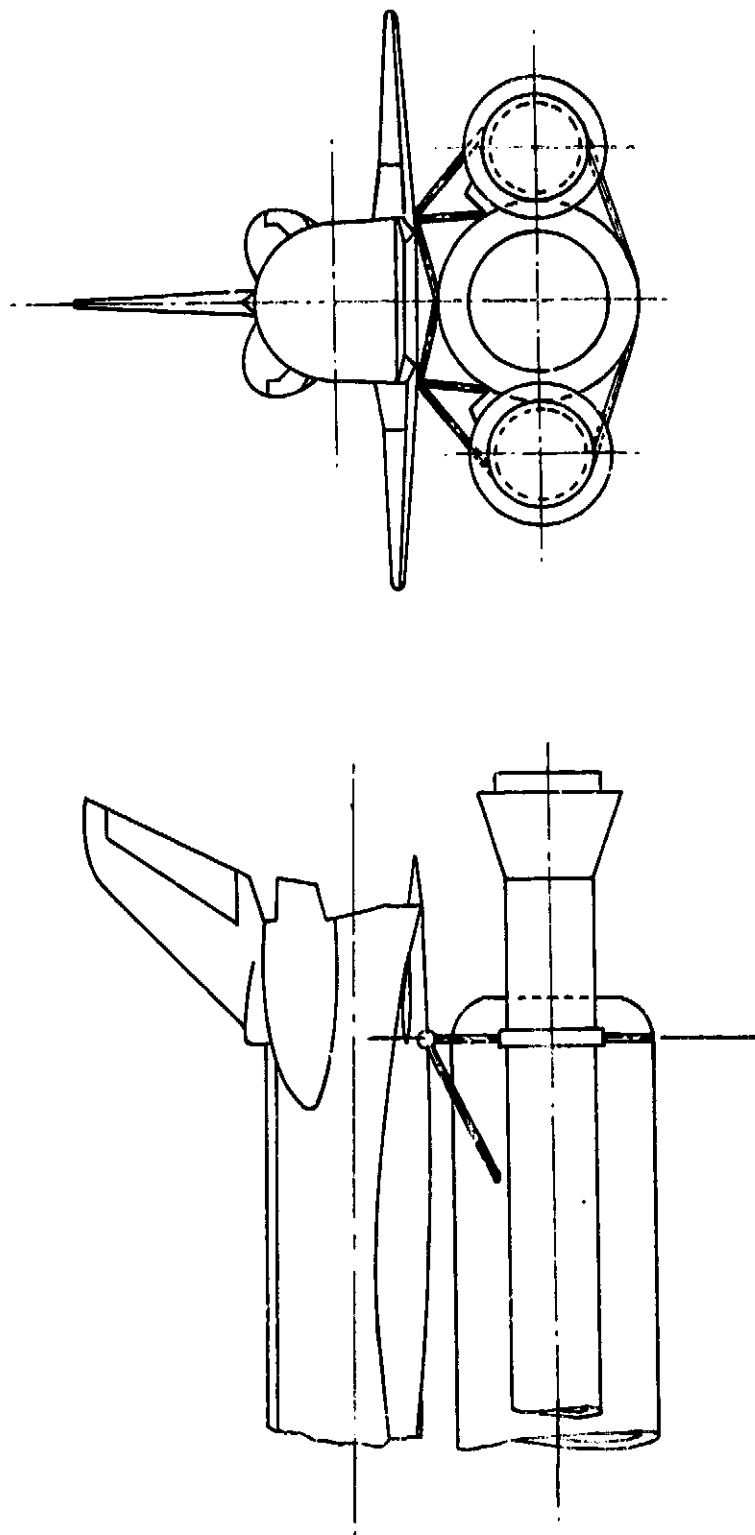
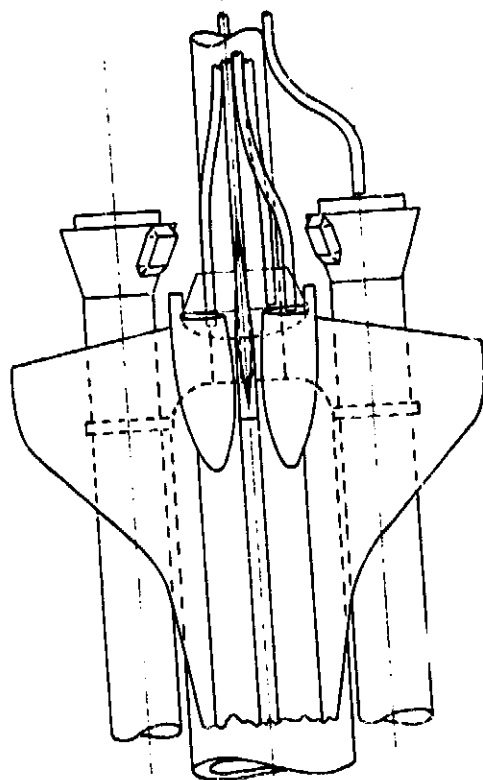


Figure 6. - Aft Interstage Structure, U5.



- BASE AREAS
- ① OMS POD
 - ② ORBITER UPPER HALF
 - ③ ORBITER LOWER HALF
 - ④ EXTERNAL TANK
 - ⑤ SRB

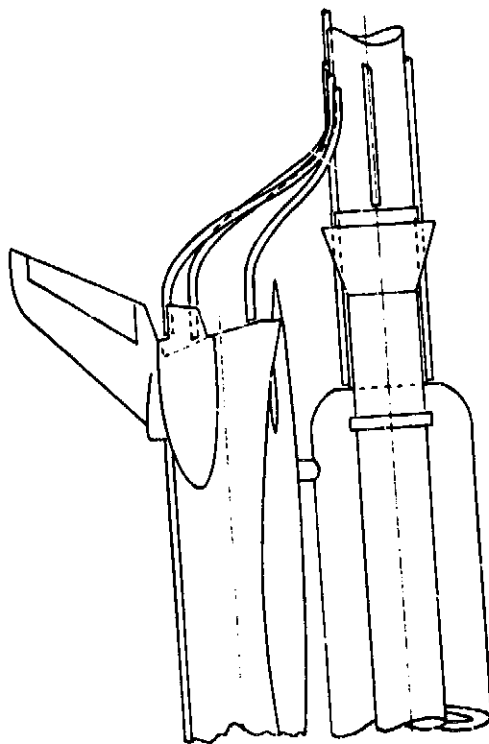
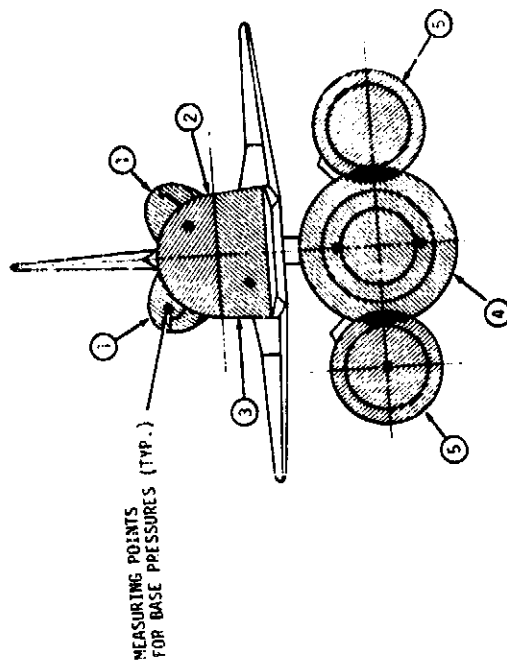
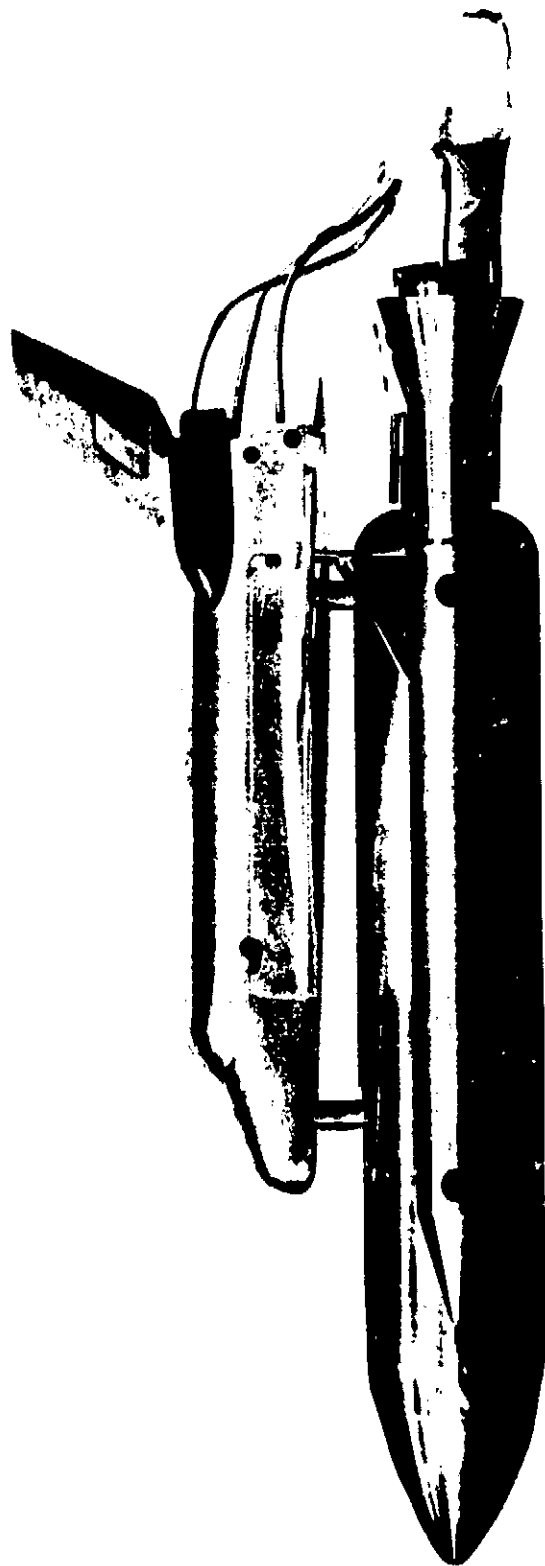


Figure 7. - Base Pressure Measuring Tube Locations.



MSFC TWT 566
 APRIL 10 1973 RUN 1
 CONFIG
 0 T S U 0 1 2
 3 9 3 5

Figure 8. - Photograph of Tunnel Installation (Side View).

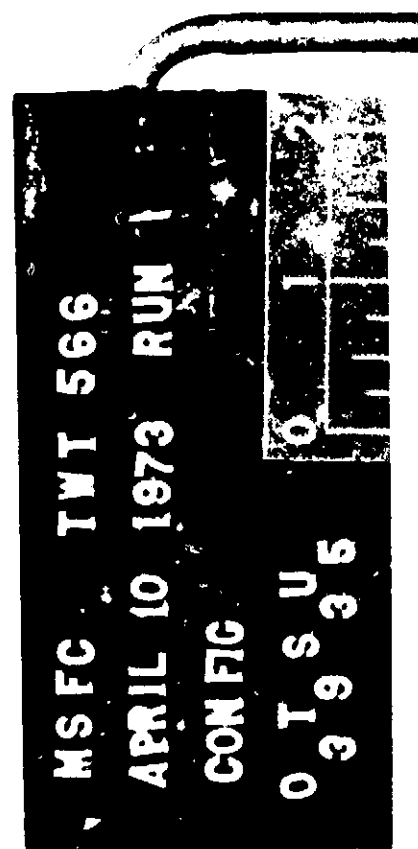
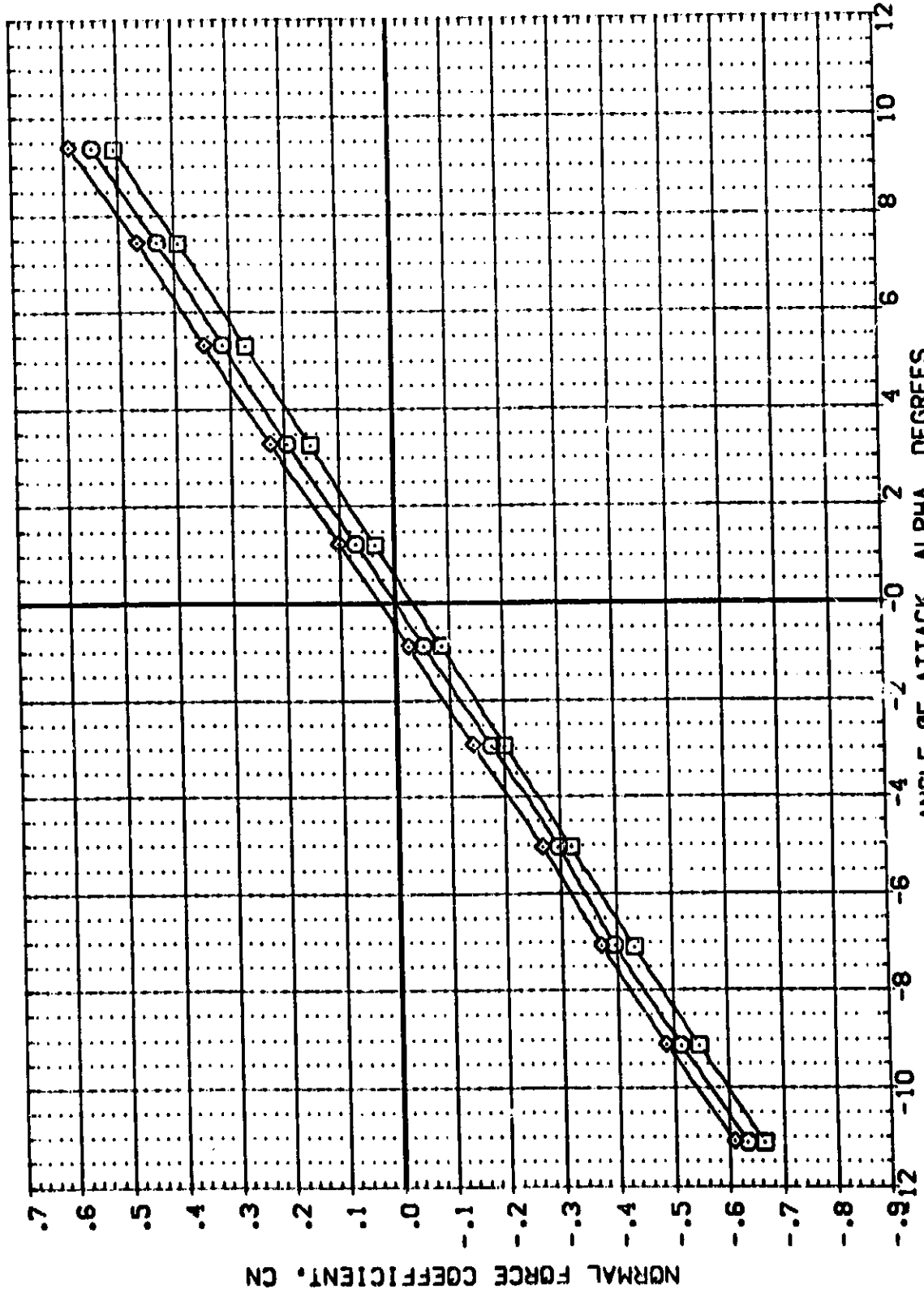


Figure 9. - Photograph of Tunnel Installation (3/4 Rear View).

DATA FIGURES



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.199 SC. IN
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-1.500	.000	.136	.000	LREF 5.313
(081005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 2.549
						XPRD .000
						ZPRD .000
						SCALE .004

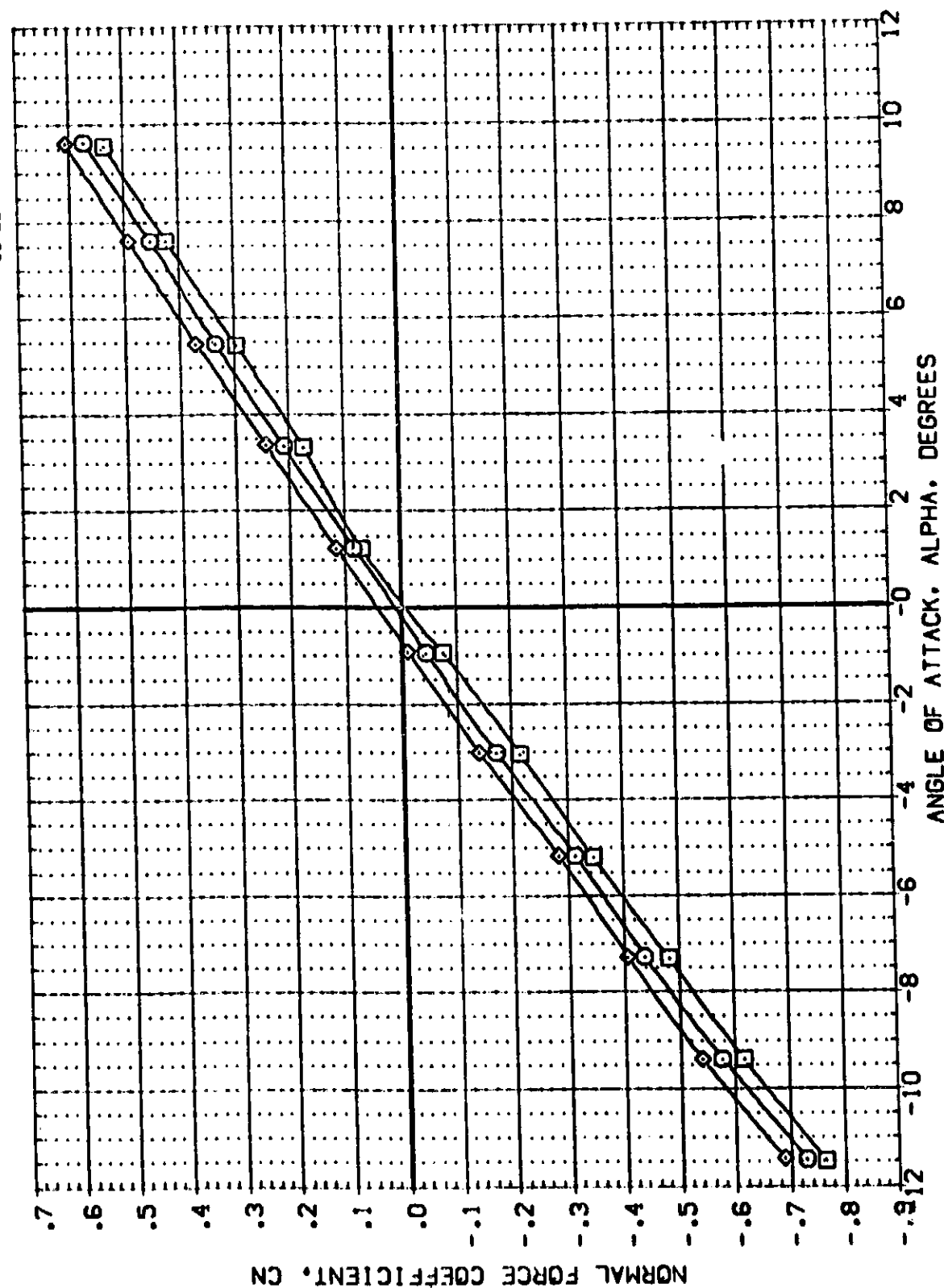


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORBIT INC X-SRB DELTA Z R-JOINER REFERENCE INFORMATION

[DB:001]	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	-500	.000	.136	.000	SREF 6.198
[DB:002]	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	-500	.000	.136	.000	LREF 5.313
[DB:003]	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						VREF .000
						ZREF .000
						SCALE .004

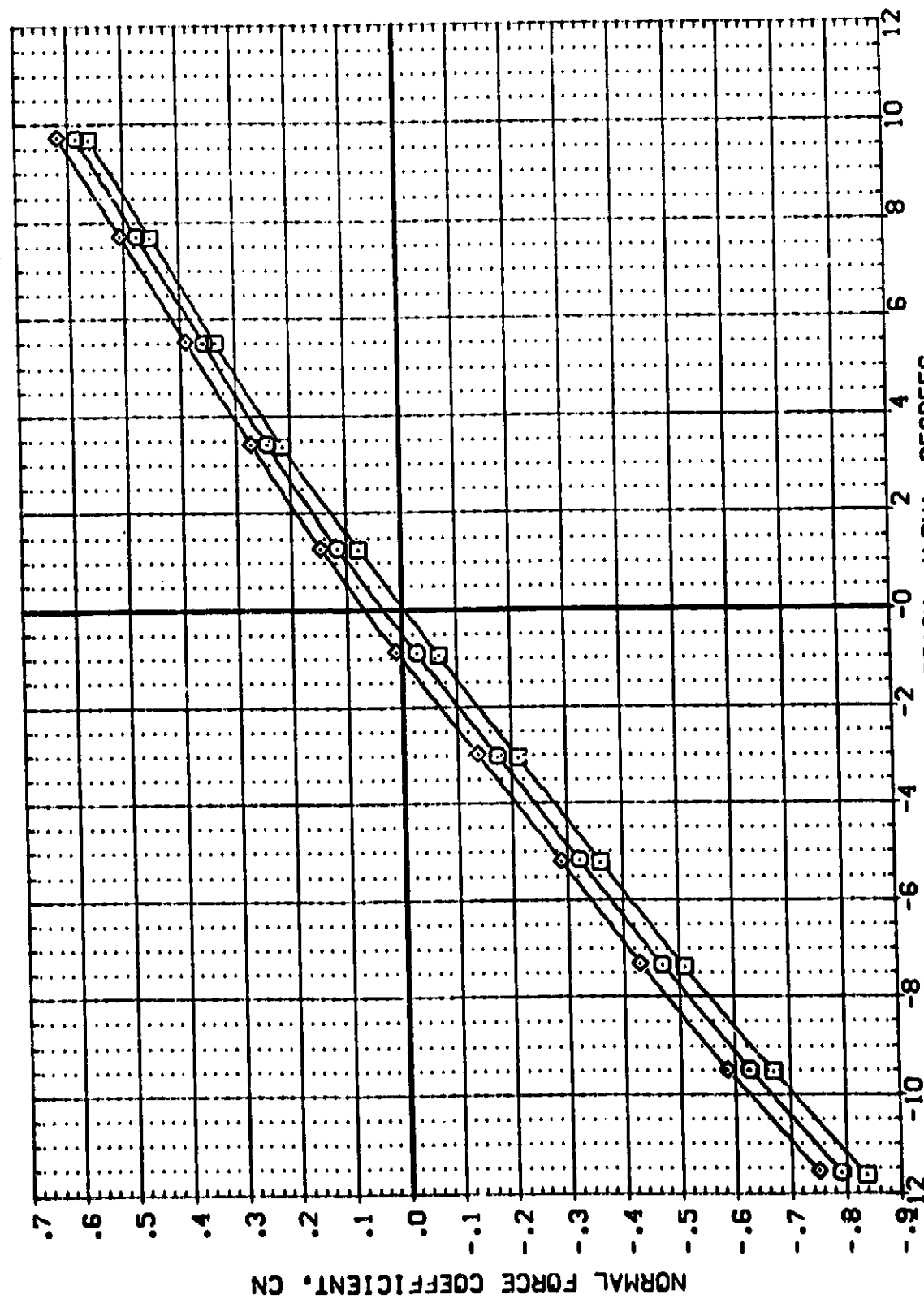


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004
						SC: IN
						IN:
						IN:
						IN:
						IN:

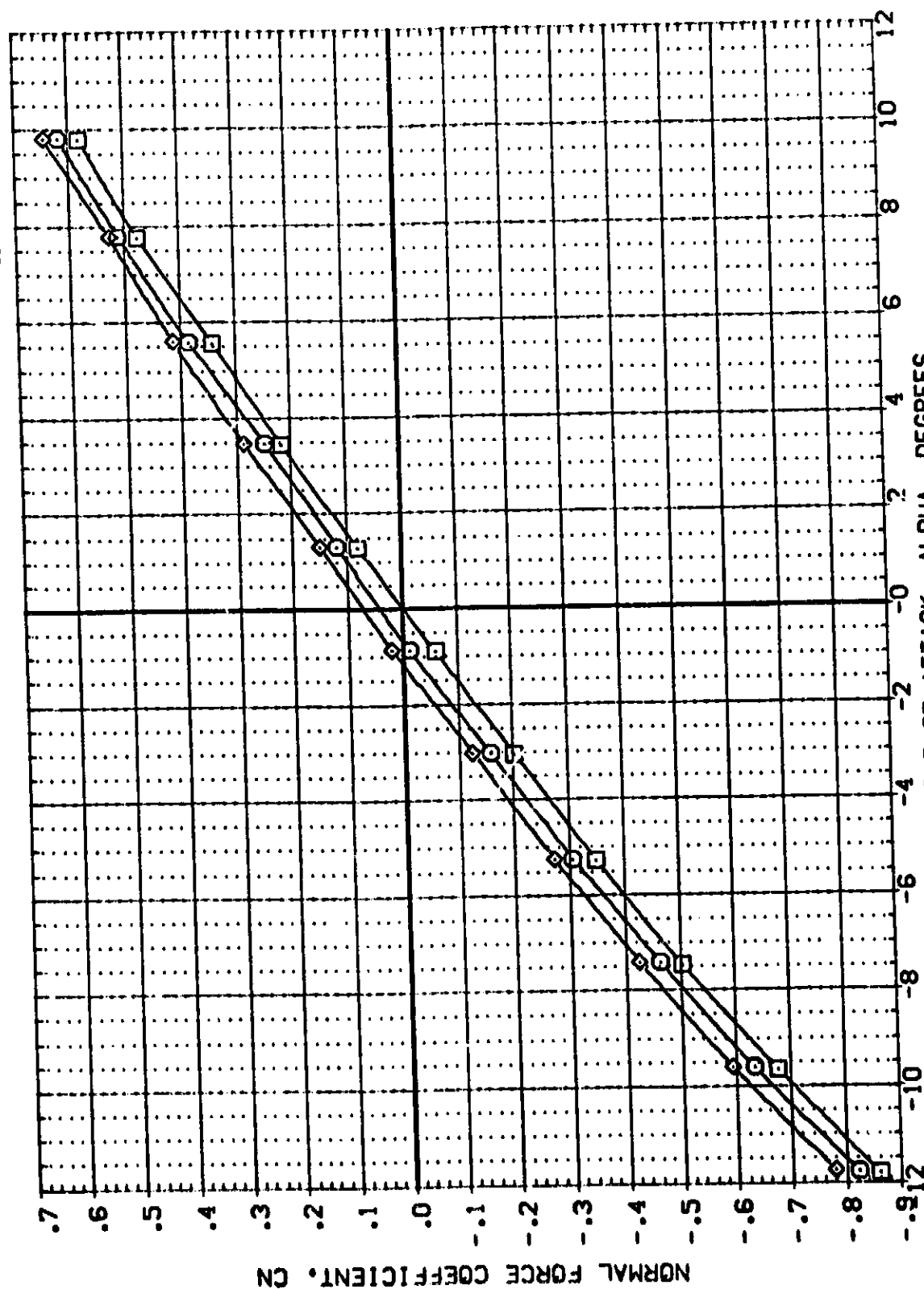


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1001) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (DB1003) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (DB1005) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITING X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .136 .000 SREF 6.198 SQ. IN.
 .500 .000 .136 .000 LREF 5.313 IN.
 1.500 .000 .136 .000 BREF 5.313 IN.
 XMRP .000 YMRP .000 ZMRP .000
 SCALE .004

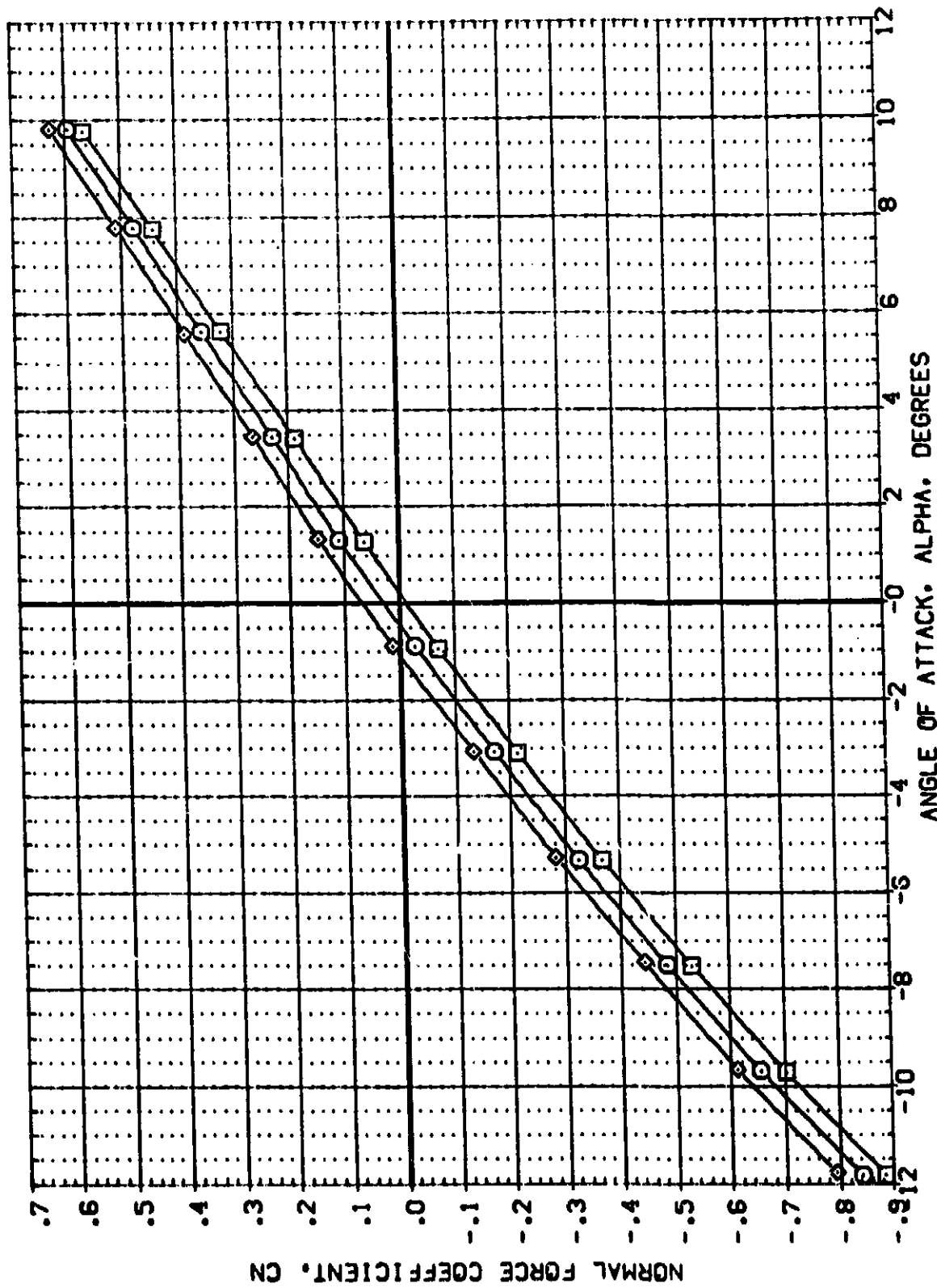


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(D)MACH = 1.25



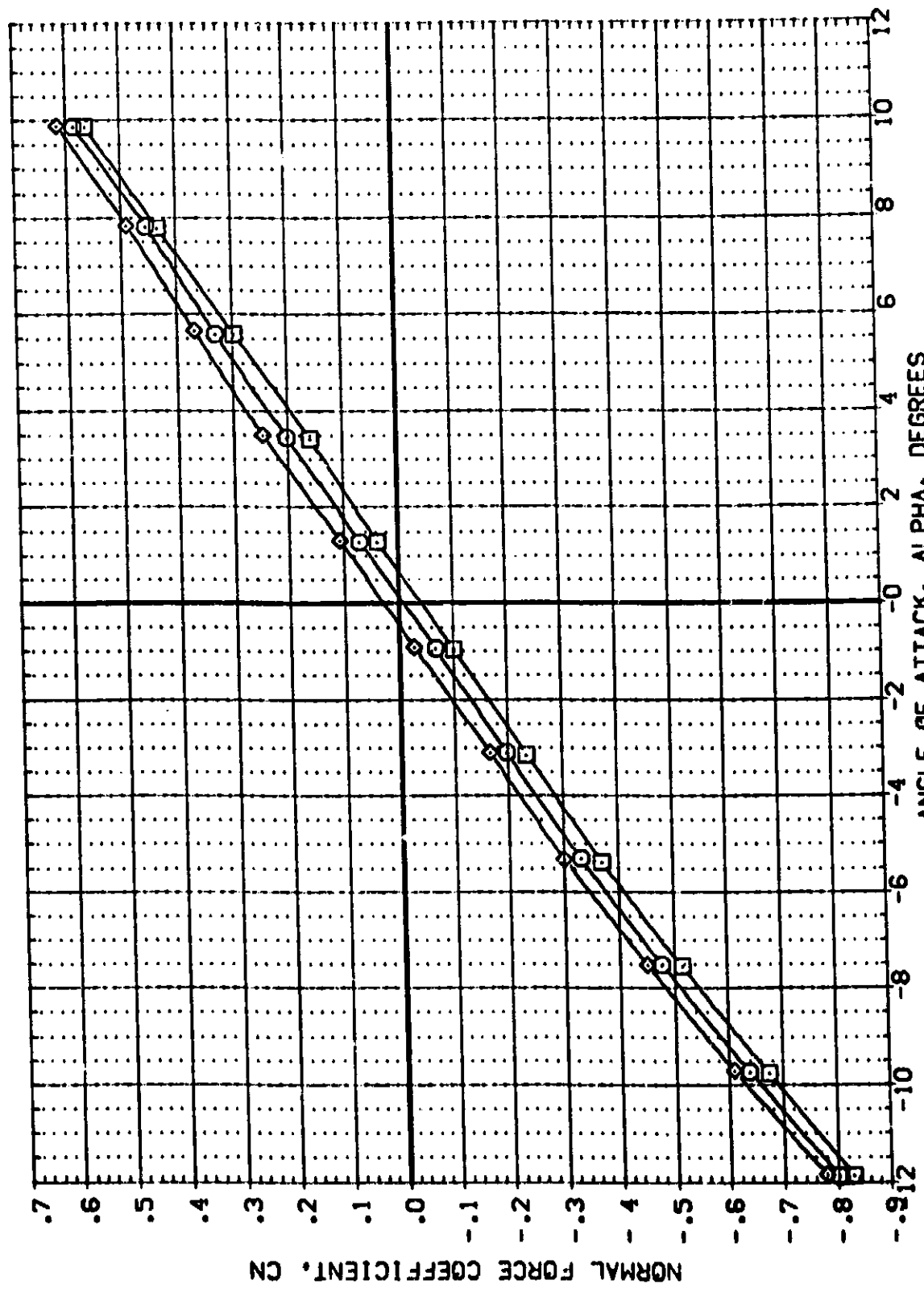
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.136	.000	SREF 6.198
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.136	.000	LREF 5.313
(081005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.136	.000	BREF 5.313
					XMRP 2.549
					YMRP .000
					ZMRP .000
					SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

CMACH = 1.45

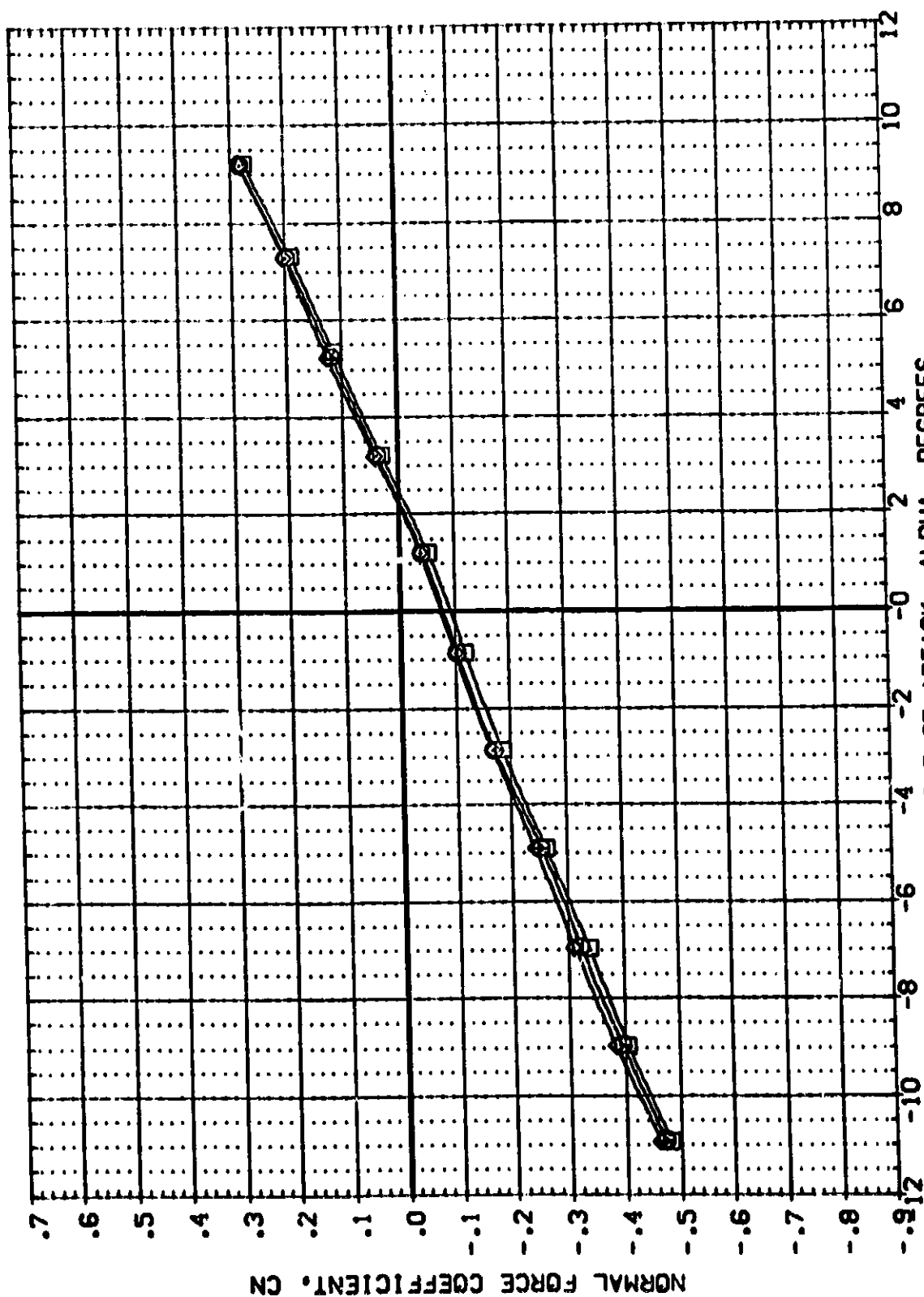
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB:001)	MSC 566 (IA3IF) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(DB:002)	MSC 566 (IA3IF) MCR 0074 LV 03 19 S3	-.500	.000	.136	.000	LREF 5.313
(DB:003)	MSC 566 (IA3IF) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RJDDER	REFERENCE INFORMATION
(08)001	H57C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198 IN.
(08)002	H57C 566 (1A31F) MCR 0074 LV 03 19 S3	-.500	.000	.136	.000	LREF 5.313 IN.
(08)003	H57C 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313 IN.
						XMRP 2.549 IN.
						YMRP .000 IN.
						ZMRP .000 IN.
						SCALE .004

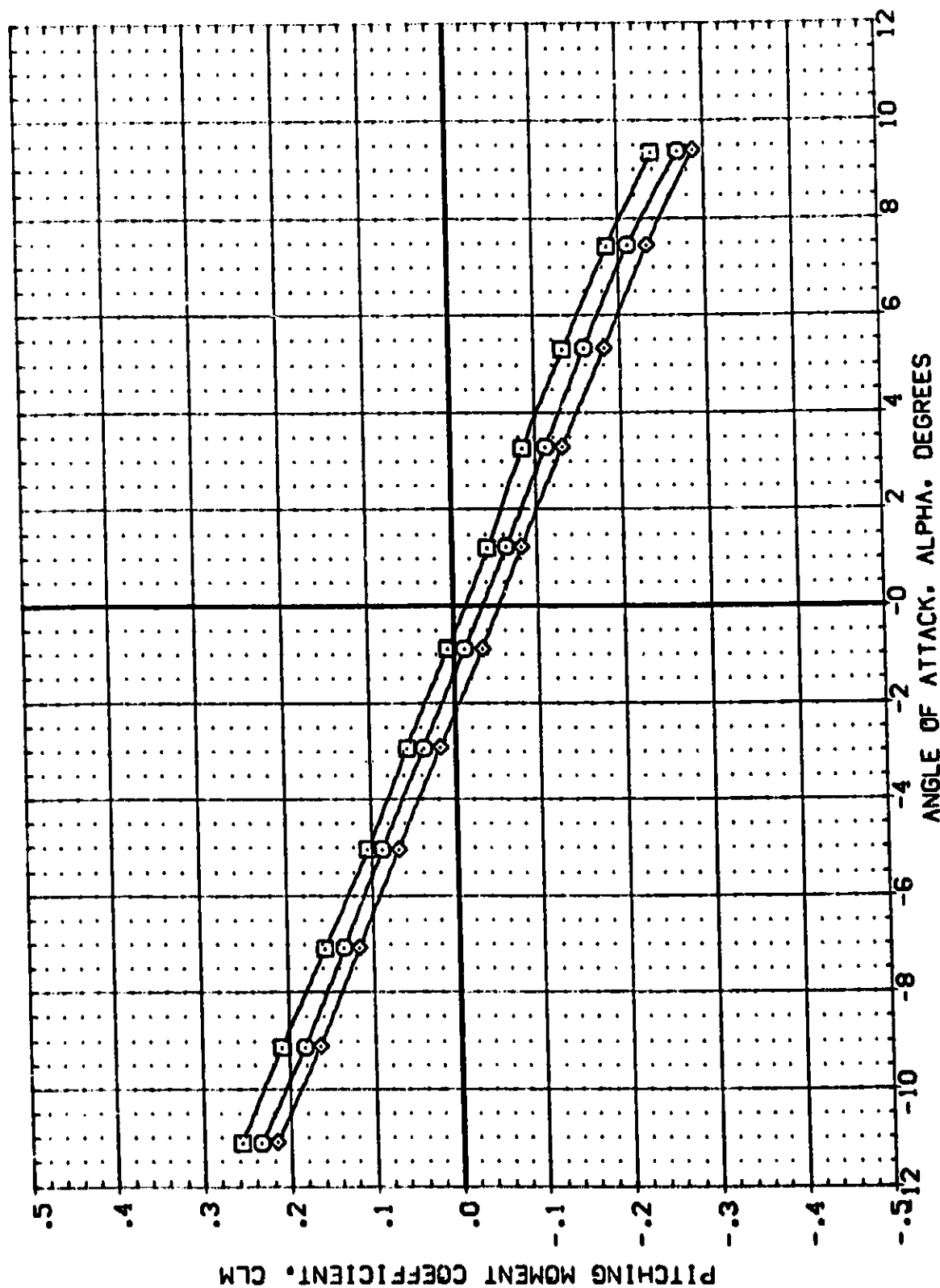


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(28)001	MSC 566 (IA3IF)	MCP 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 5.198
(28)002	MSC 566 (IA3IF)	MCP 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(28)003	MSC 566 (IA3IF)	MCP 0074 LV 03 T9 S3	.500	.000	.136	.000	BREF 5.313
(28)004	MSC 566 (IA3IF)	MCP 0074 LV 03 T9 S3	.500	.000	.136	.000	XMRP 2.549
(28)005	MSC 566 (IA3IF)	MCP 0074 LV 03 T9 S3	.500	.000	.136	.000	YMRP .000
			.500	.000	.136	.000	ZMRP .000
			.500	.000	.136	.000	SCALE .004

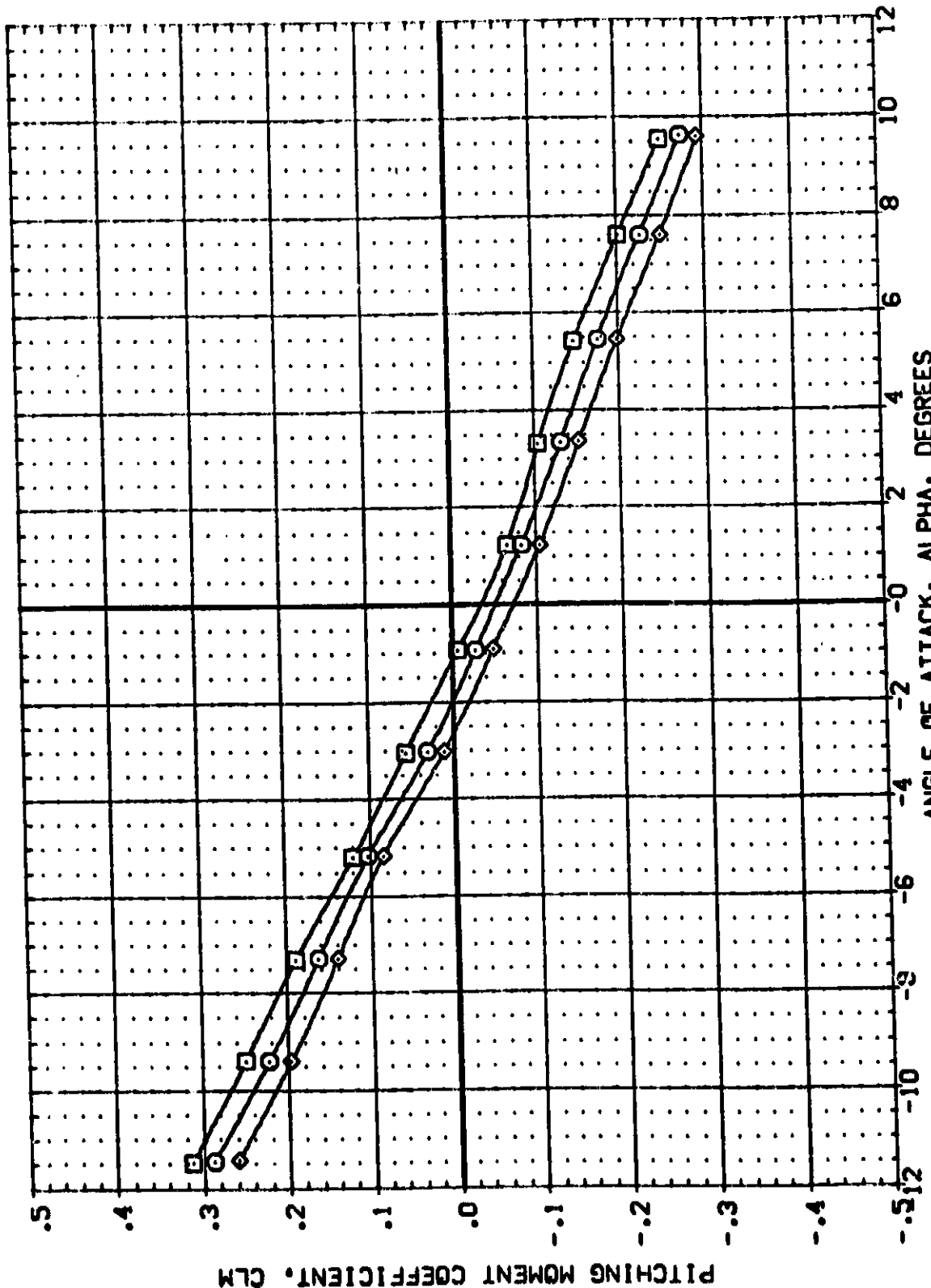


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60



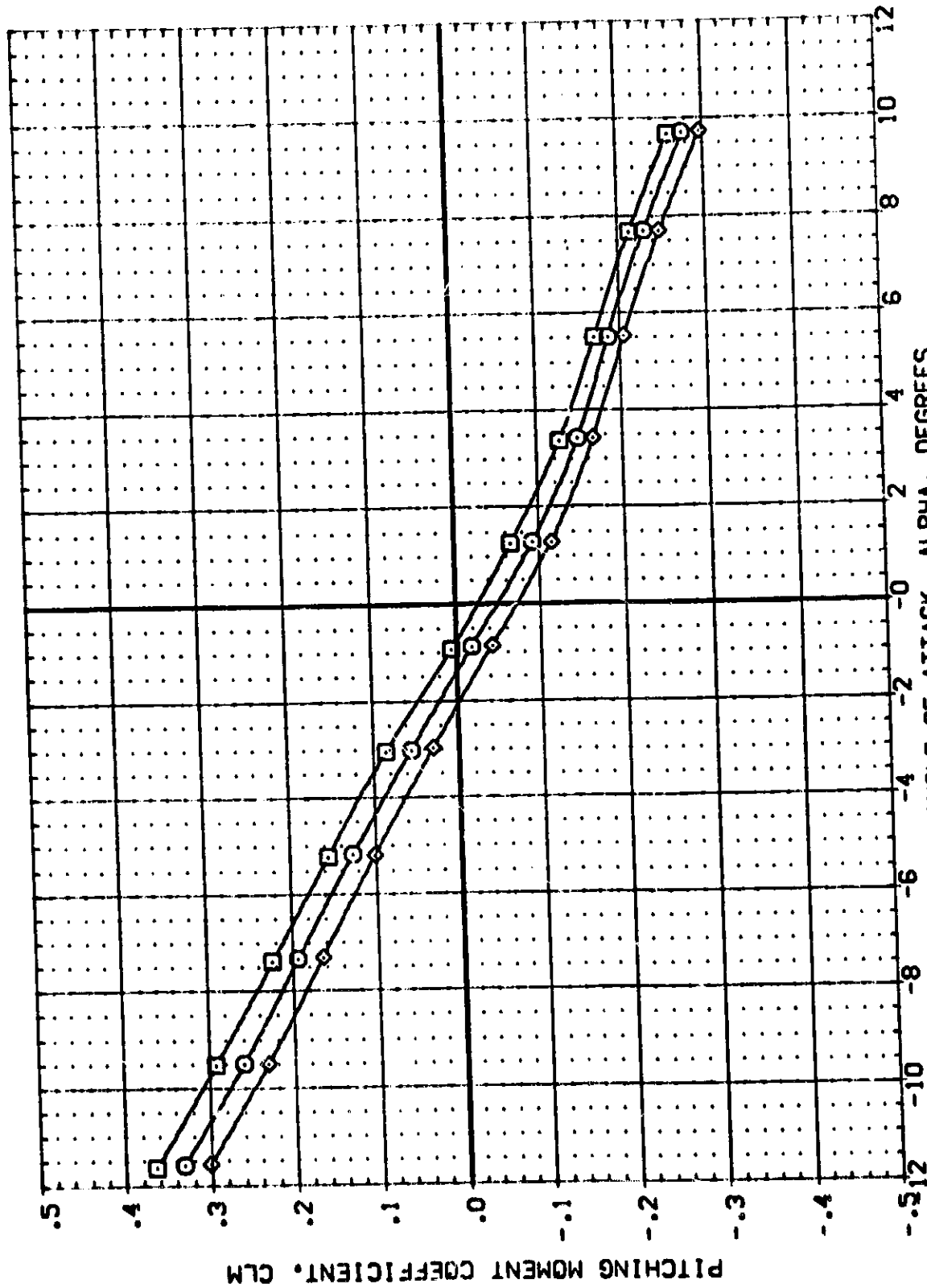
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SO. IN
(DB1001)	MSFC 586 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198	IN.
(DB1003)	MSFC 586 (1A31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313	IN.
(DB1005)	MSFC 586 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313	IN.
						YMRP .000	IN.
						ZMRP .000	IN.
						SCALE .004	



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91

ORGINC	X-SRB	DELTAZ	RUOTR	REFERENCE INFORMATION	SD. IN
.500	.000	.136	.000	SREF	6.198
.500	.000	.136	.000	REF	5.313
-.500	.000	.136	.000	SREF	5.313
1.500	.000	.136	.000	X-PRP	2.549
				Y-PRP	.000
				Z-PRP	.000
				SCALE	.004

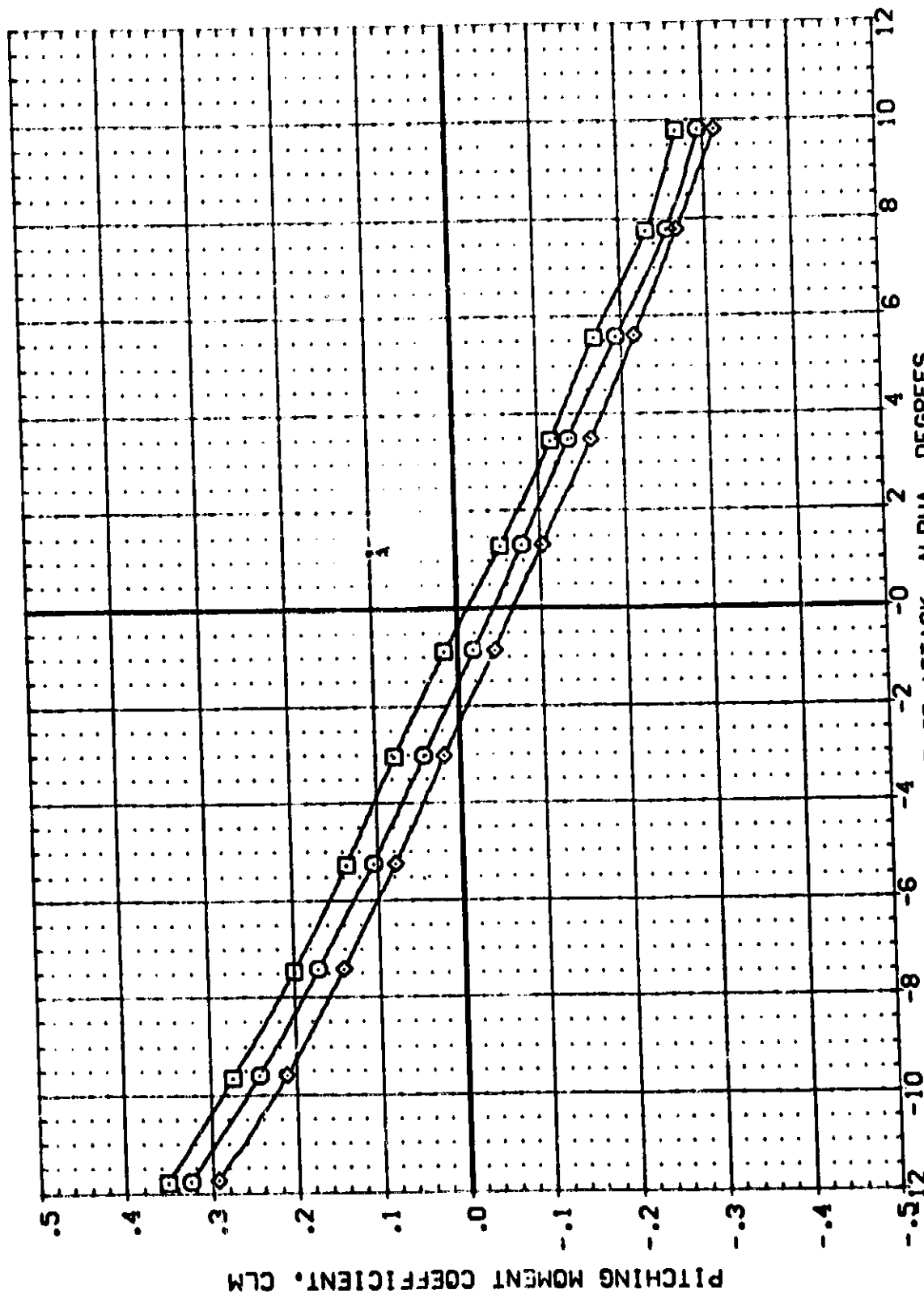


EFFECT OF ARBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

CO MACH = 1.05



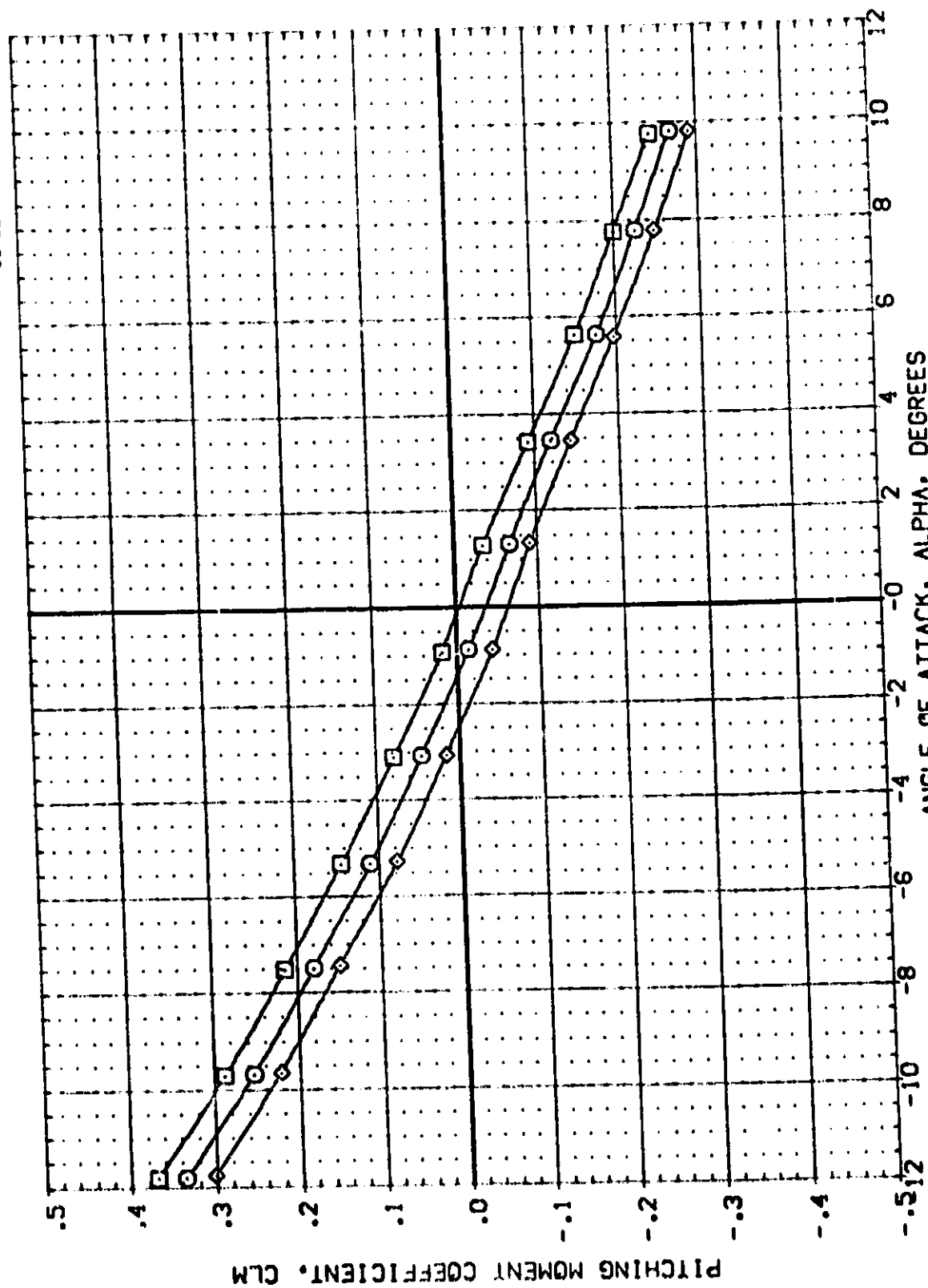
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081003)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313
(081005)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .001



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(0)MACH = 1.25

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
[281001]	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
[281002]	MSFC 566 (1A31F) MCR 0074 LV 03 18 S3	.500	.000	.136	.000	LREF 5.313
[281003]	MSFC 566 (1A31F) MCR 0074 LV 03 18 S3	.500	.000	.136	.000	BREF 5.313
[281004]	MSFC 566 (1A31F) MCR 0074 LV 03 18 S3	.500	.000	.136	.000	XREF 2.548
[281005]	MSFC 566 (1A31F) MCR 0074 LV 03 18 S3	.500	.000	.136	.000	YREF .000
[281006]	MSFC 566 (1A31F) MCR 0074 LV 03 18 S3	.500	.000	.136	.000	ZREF .000
[281007]	MSFC 566 (1A31F) MCR 0074 LV 03 18 S3	.500	.000	.136	.000	SCALE .004

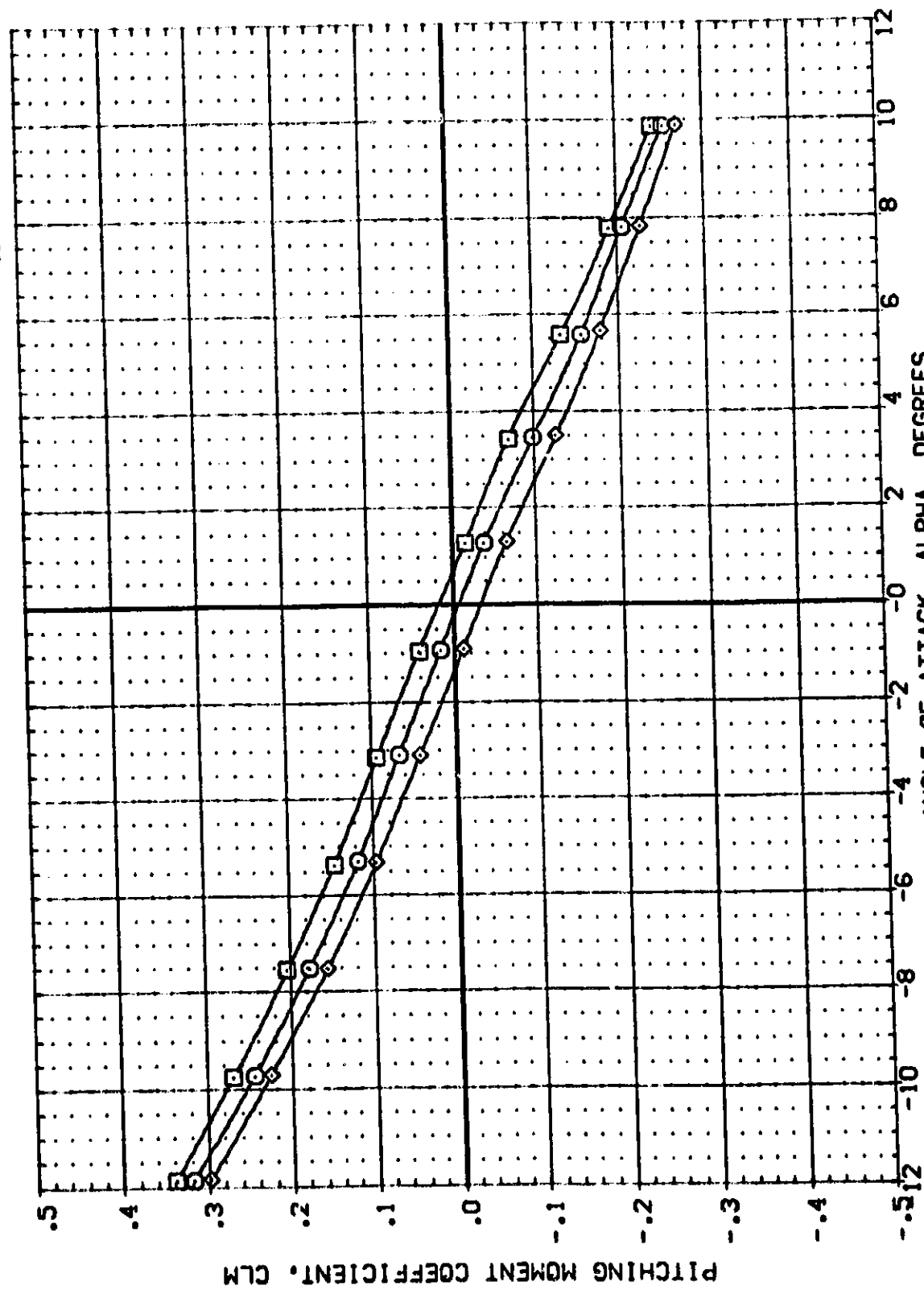


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(EDMACH = 1.45)



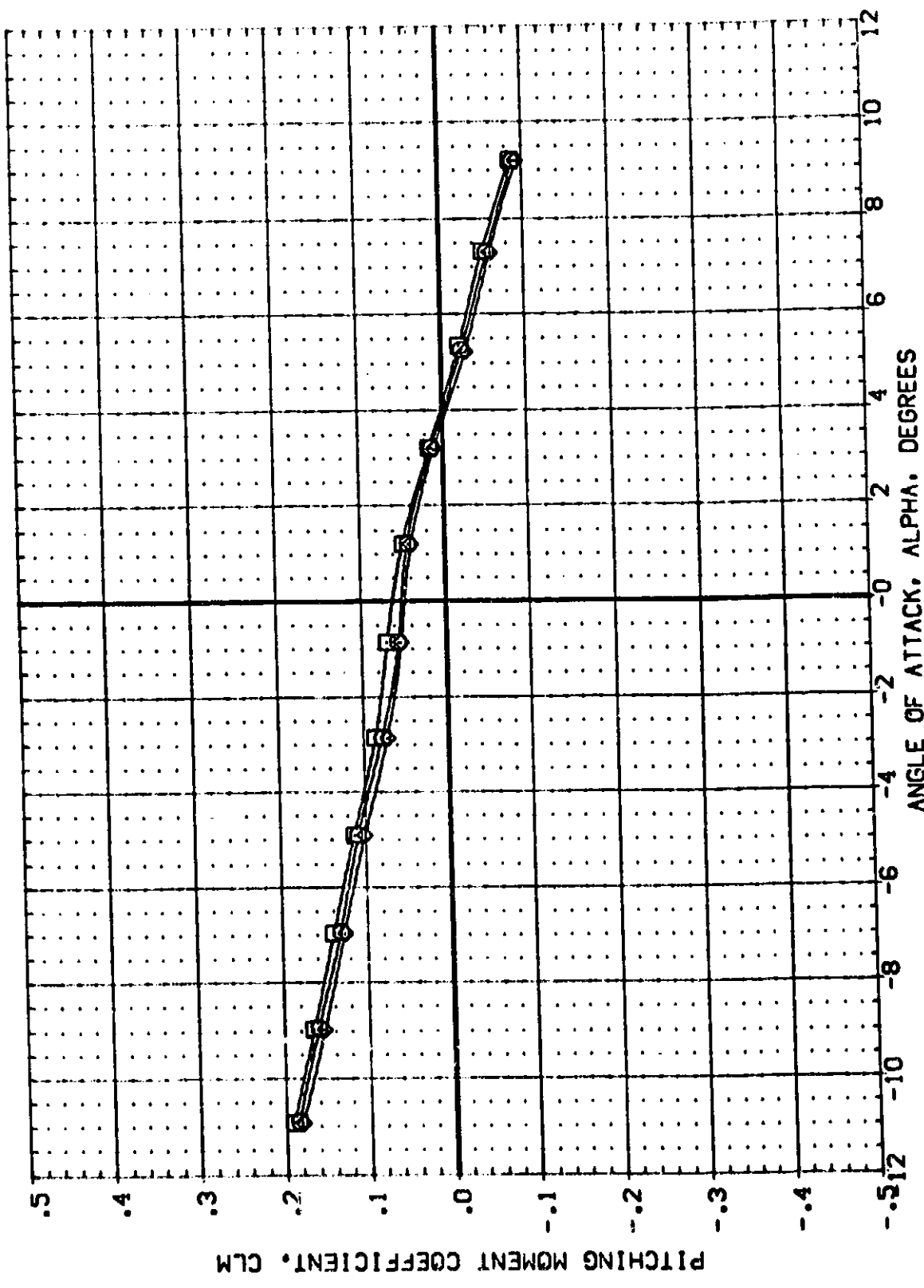
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA	RUDDER	REFERENCE INFORMATION
(DB1001)	MSFC 566 (IA31F) MCR 0074 LV 03 19 53	.500	.000	1.76	.000	SREF 6.198
(DB1003)	MSFC 566 (IA31F) MCR 0074 LV 03 19 53	-.500	.000	.136	.000	LREF 5.313
(DB1005)	MSFC 566 (IA31F) MCR 0074 LV 03 19 53	-1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB:001)	MSC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(DB:003)	MSC 566 (IA31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313
(DB:005)	MSC 566 (IA31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004

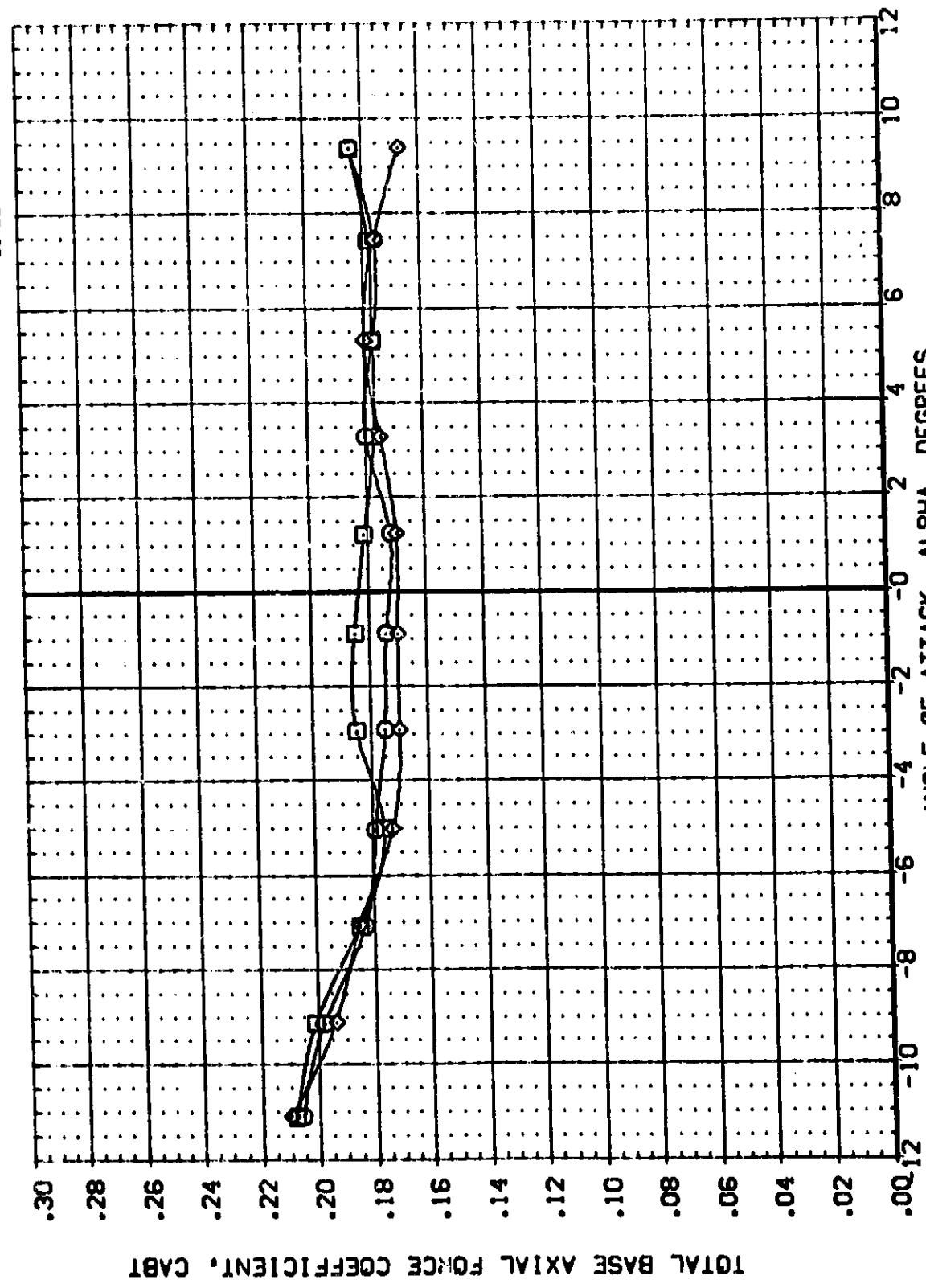


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(G)MACH = 4.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 5.198
(091003)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	-.500	.000	.136	.000	LREF 5.313
(081005)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						YMRP 2.549
						ZMRP .000
						SCALE .004

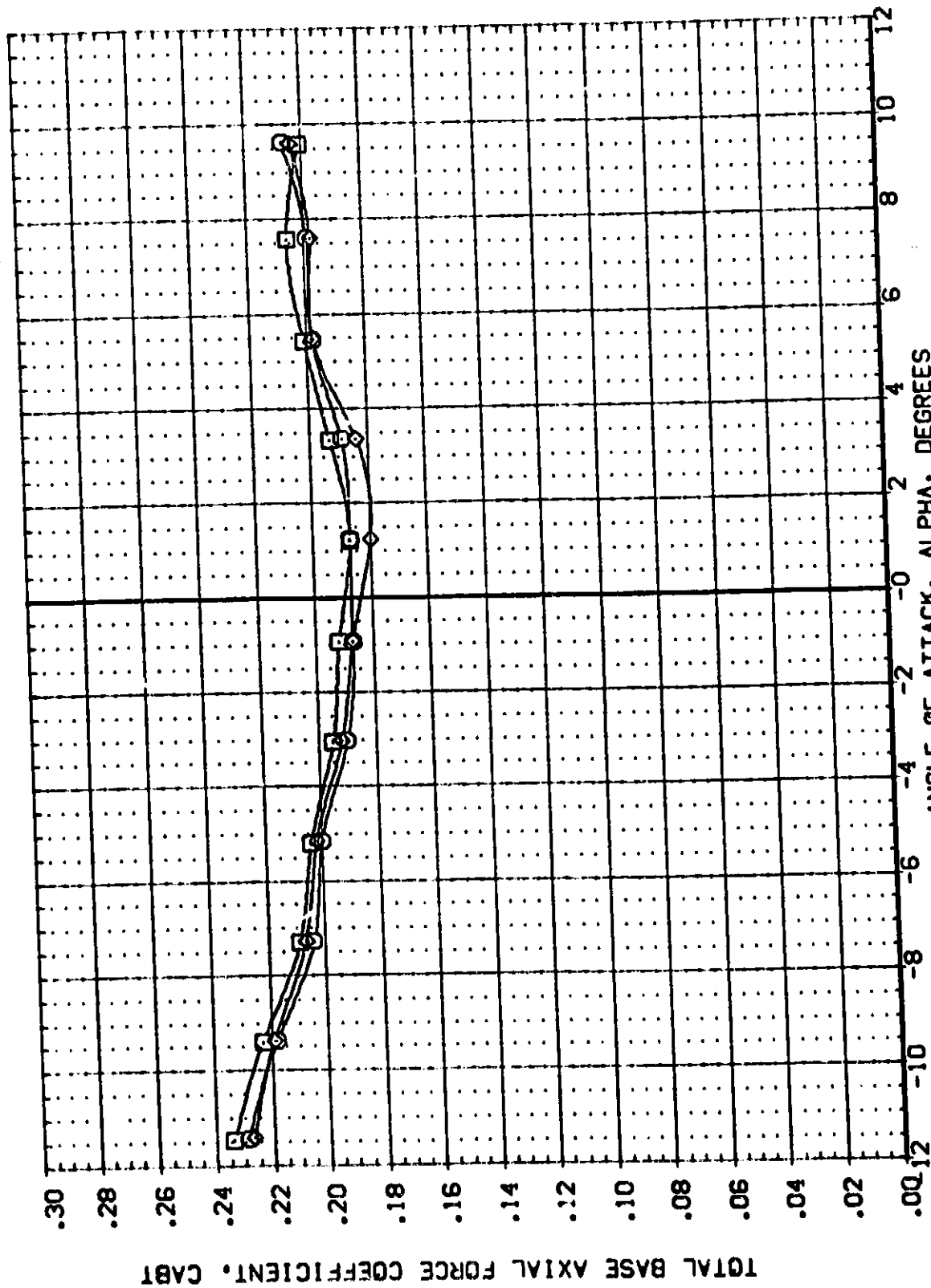


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(M)MACH = 0.60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081001) Q MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (081003) Q MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (081005) Q MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

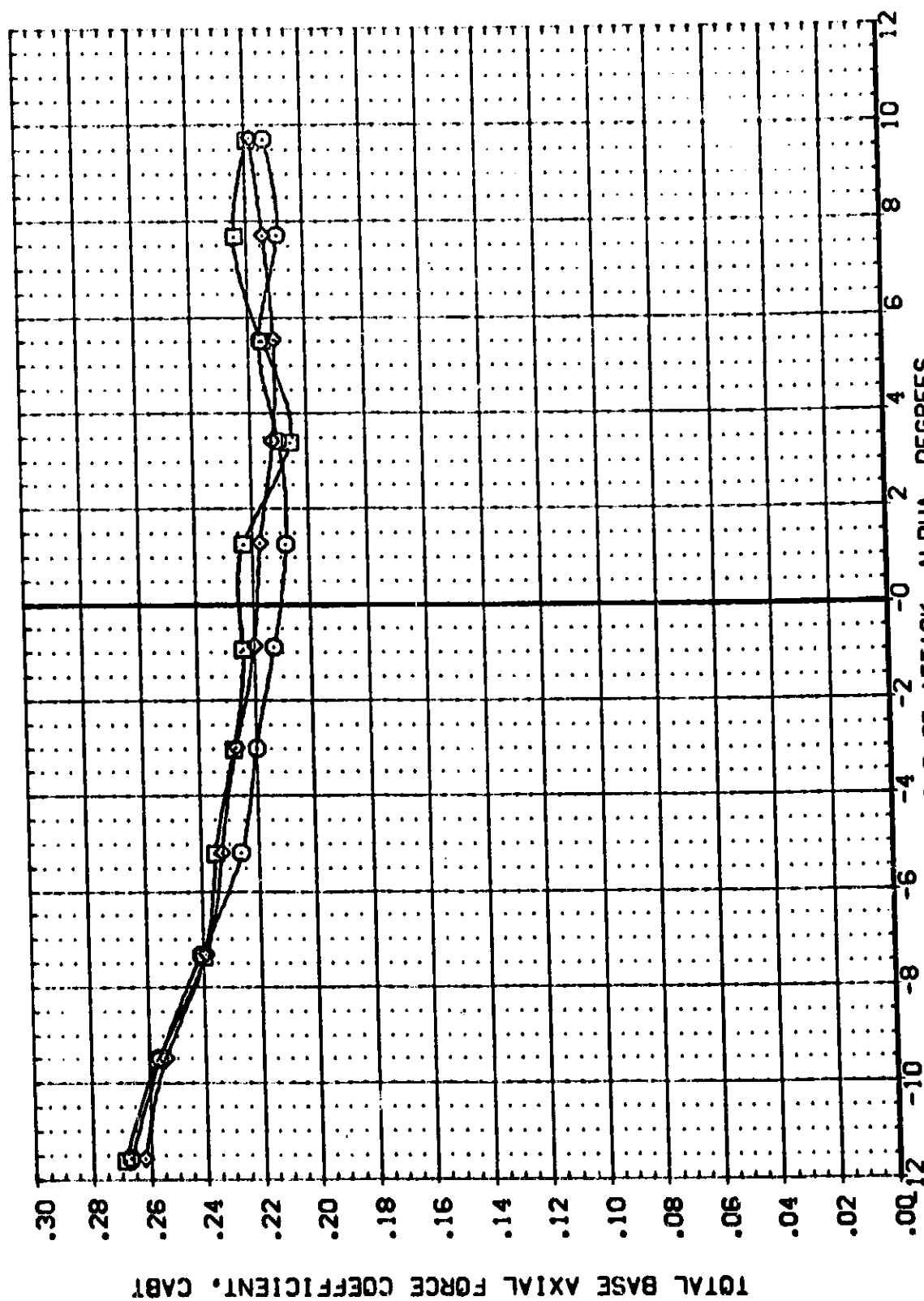
ORBITING X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198 SQ. IN
 .500 .000 .000 LREF 5.313
 1.500 .000 .000 BREF 5.313
 XPROP 2.549
 YPROP .000
 ZPROP .000
 SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(S)MACH = 0.91

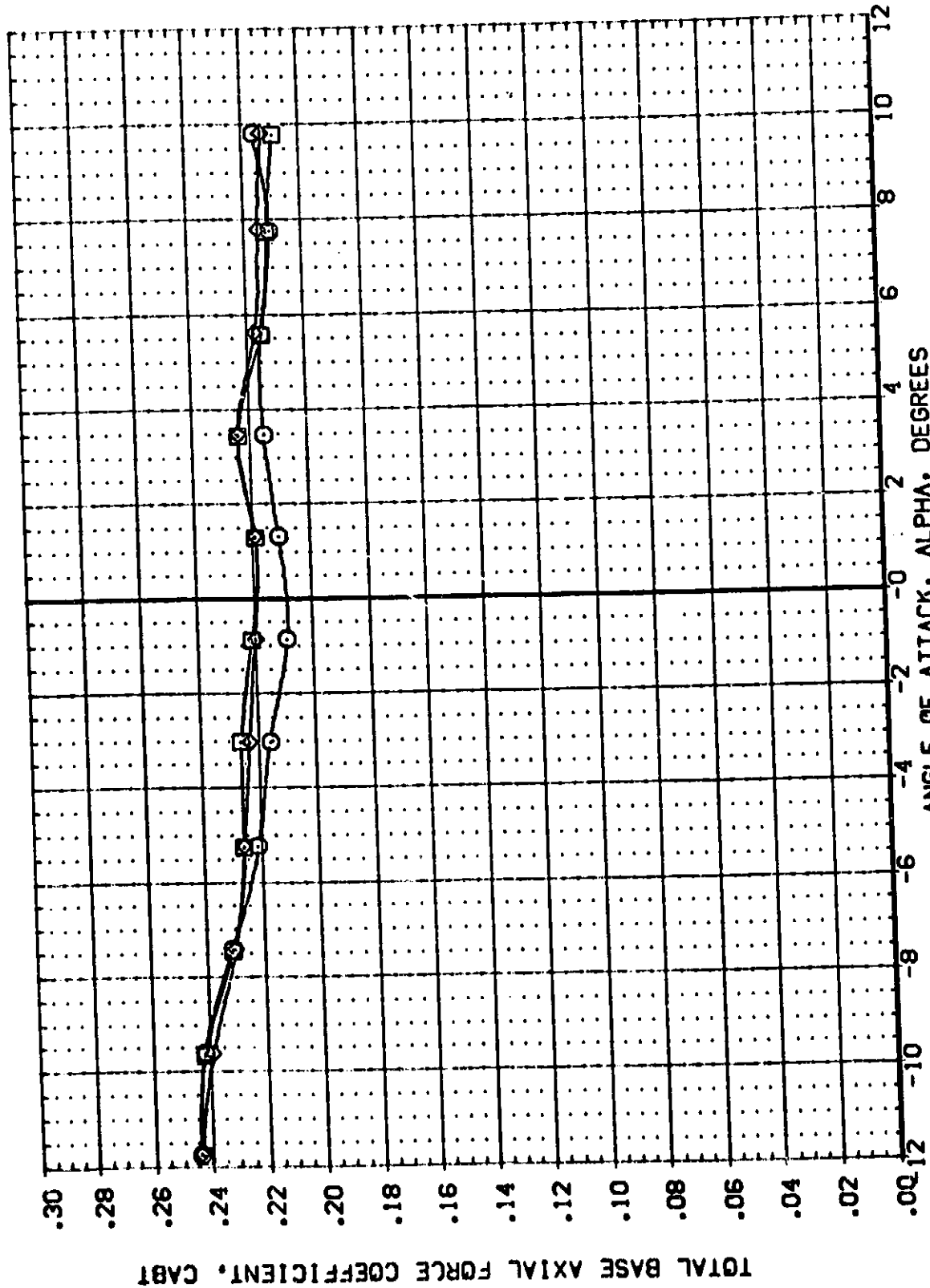
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
[08]001	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
[08]003	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
[08]005	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(CJ)MACH = 1.05

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 536 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(081005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XGRP 2.549
						YGRP .000
						ZGRP .000
						SCALE .004

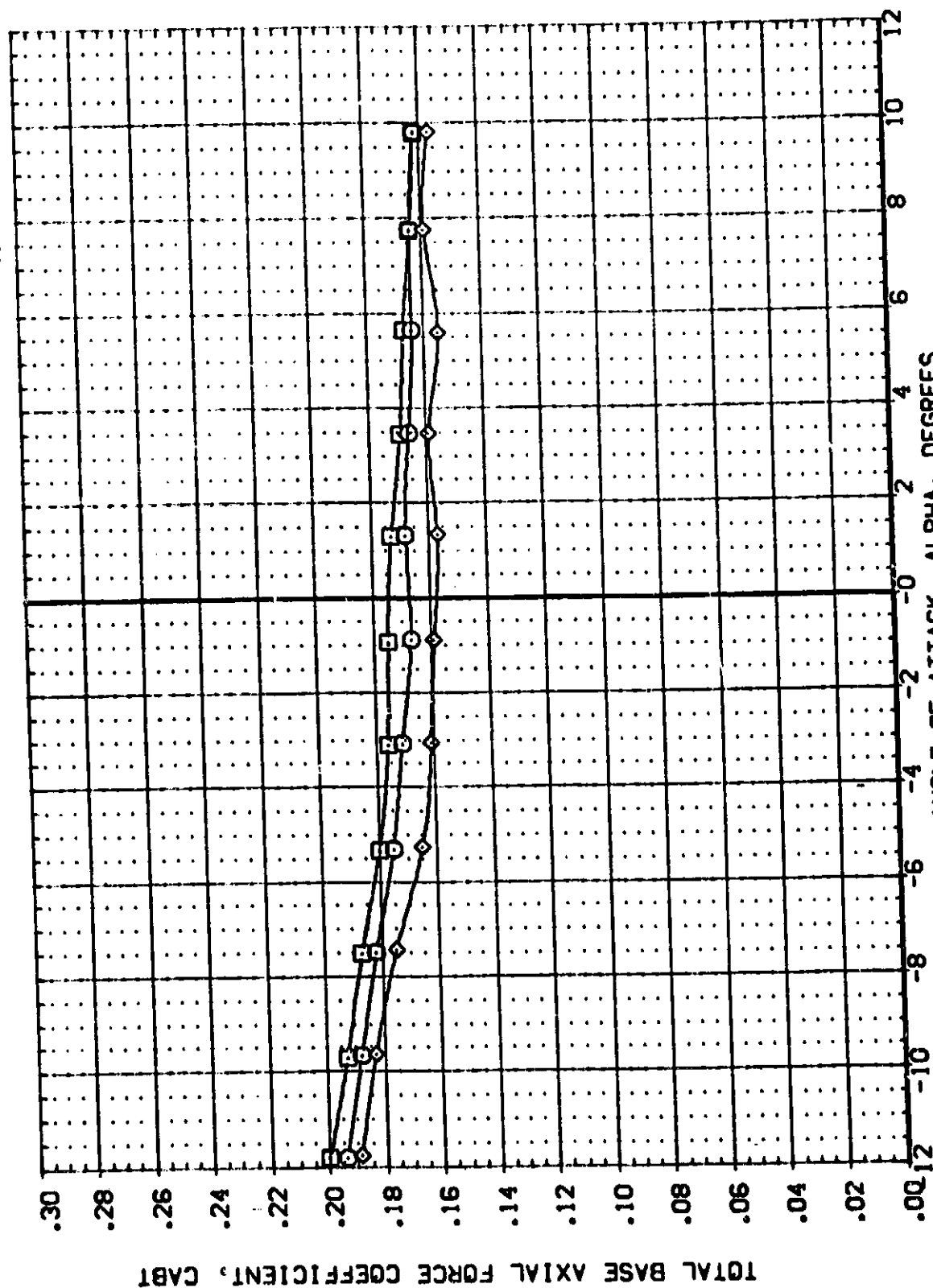


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(0)MACH = 1.25



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION	SCALE
(081001)	□	MSC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198	IN.
(081003)	◇	MSC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	LREF 5.313	IN.
(081005)	◇	MSC 566 (1A31F) MCR 0074 LV 03 19 S3					BREF 5.313	IN.
							YMRP 2.549	IN.
							ZMRP .000	IN.
							SCALE .004	

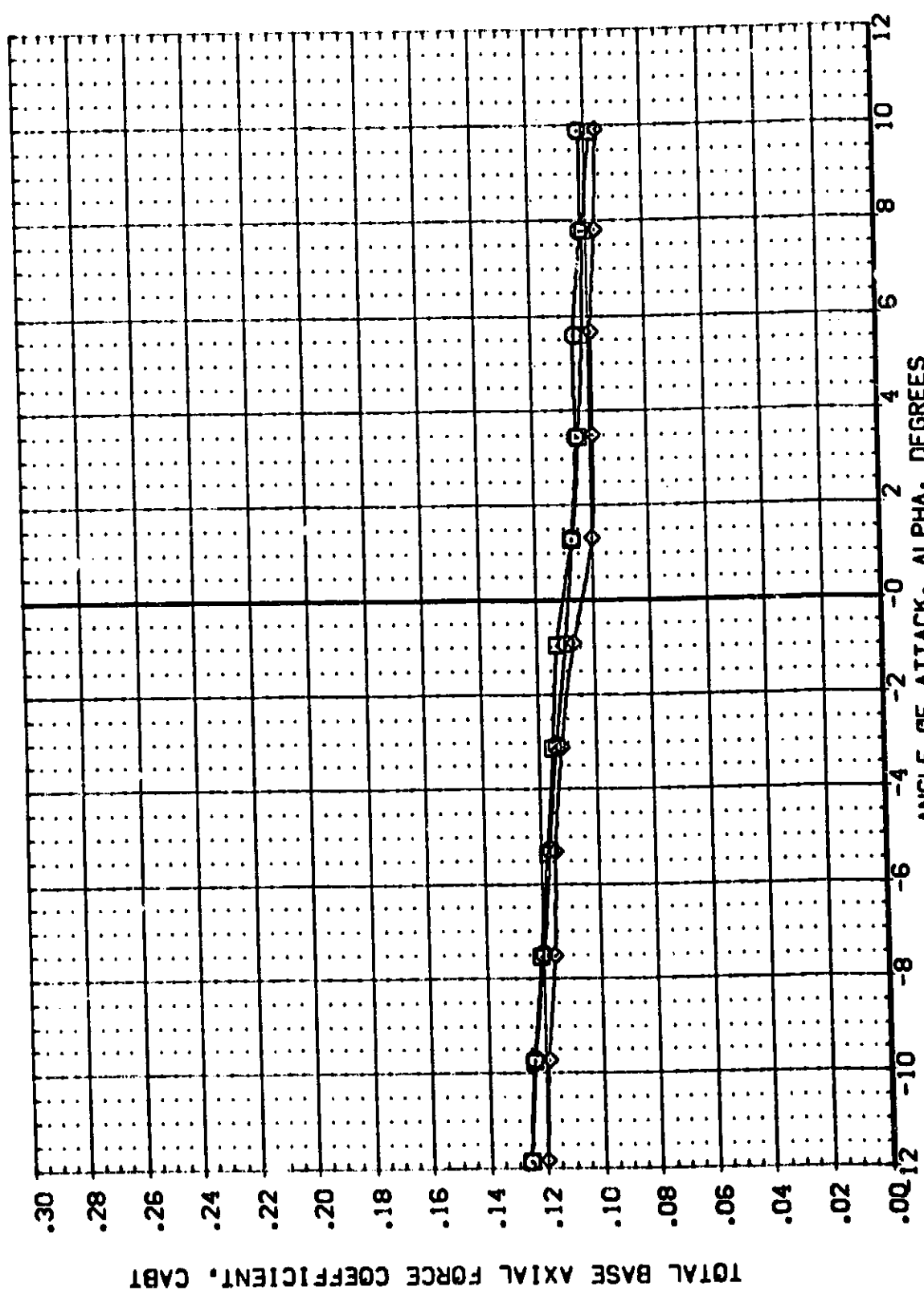


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(E)MACH = 1.45

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (08:001) MSC S66 (1A31F) MCR 0074 LV 03 T9 S3
 (08:003) MSC S66 (1A31F) MCR 0074 LV 03 T9 S3
 (08:005) MSC S66 (1A31F) MCR 0074 LV 03 T9 S3

ORBIT INC X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ. IN
 .500 .000 .000 SREF 6.198
 -.500 .000 .000 LREF 5.313
 1.500 .000 .000 BREF 5.313
 YMRP 2.548
 ZMRP .000
 SCALE .004

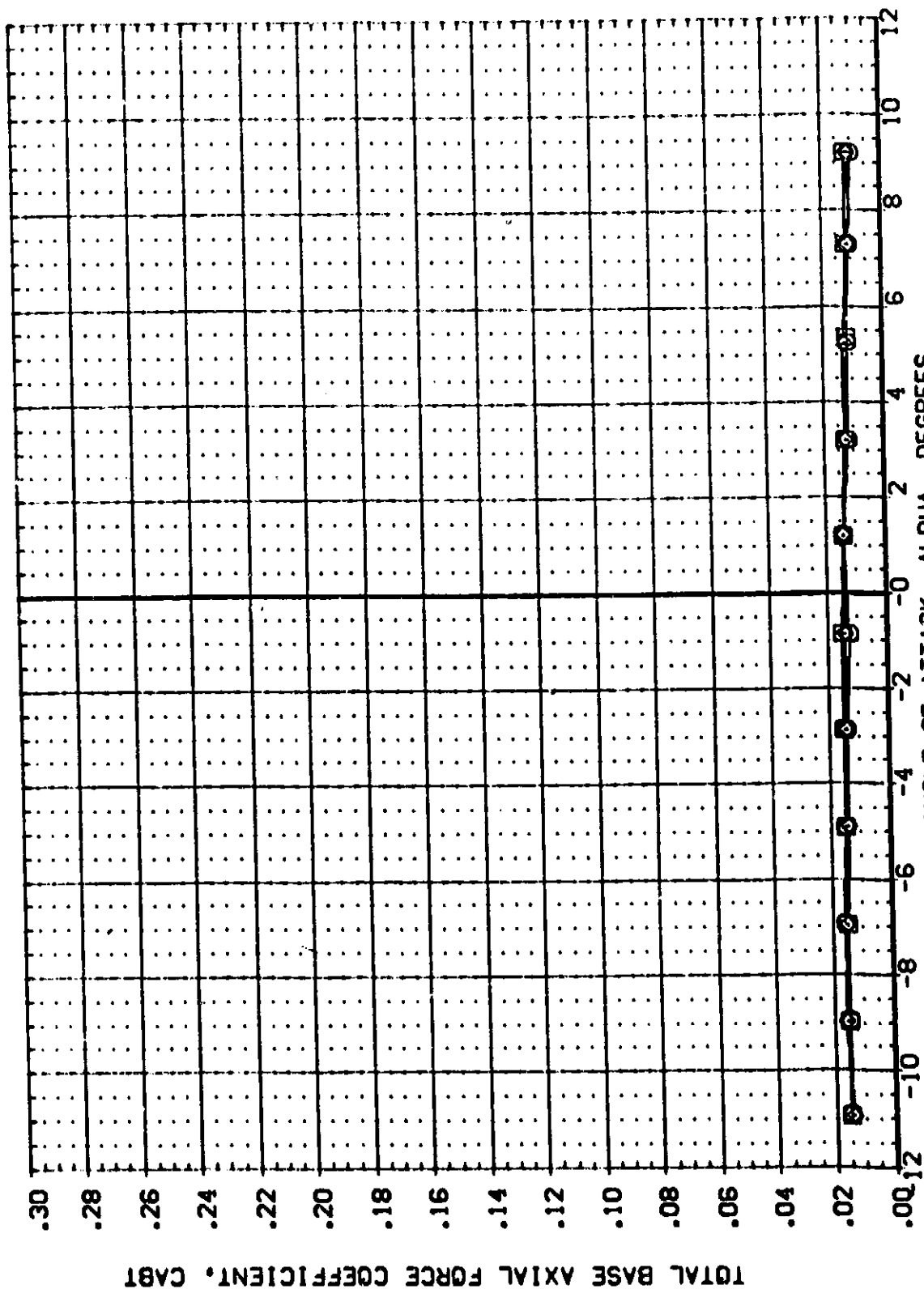


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION S2 IN

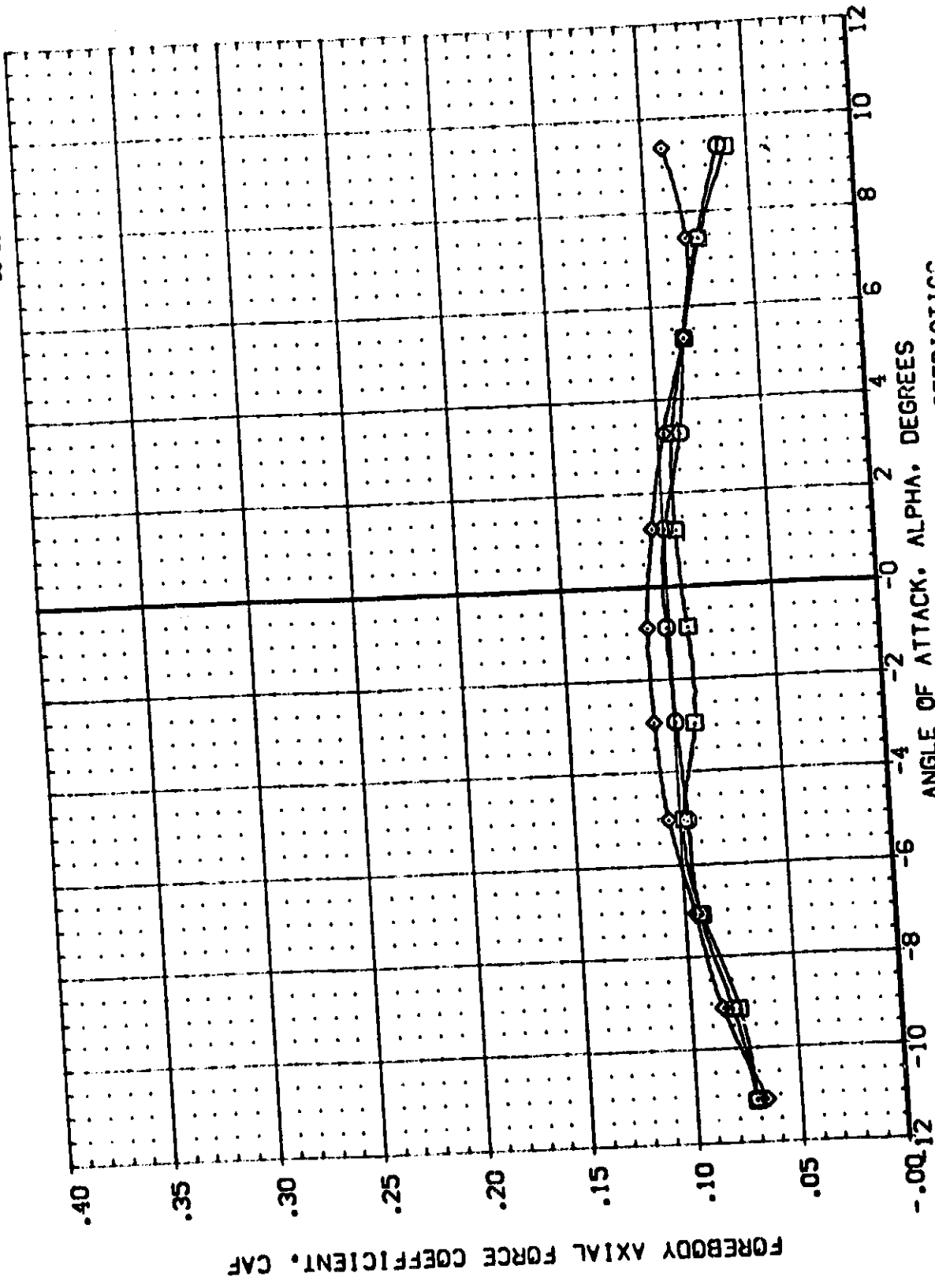
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	S2 IN
(DB1001)	MSFC 566 (IA31F) PCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198	2.2222
(DB1002)	MSFC 566 (IA31F) PCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313	2.2222
(DB1003)	MSFC 566 (IA31F) PCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313	2.2222
(DB1004)	MSFC 566 (IA31F) PCR 0074 LV 03 T9 S3					XREF 2.548	2.2222
(DB1005)	MSFC 566 (IA31F) PCR 0074 LV 03 T9 S3					YREF .000	2.2222
						ZREF .000	2.2222
						SCALE .004	2.2222



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

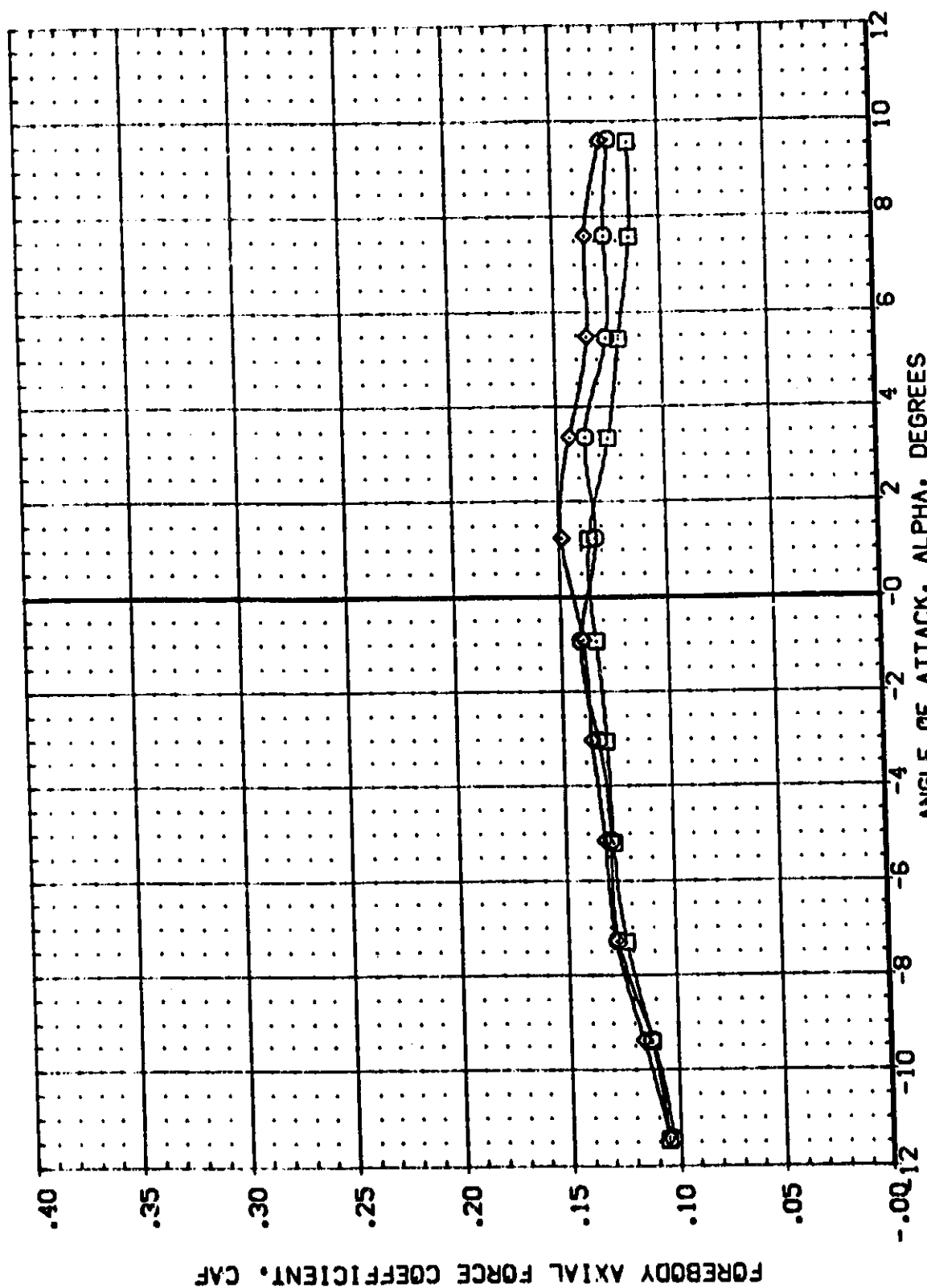
(G)MACH = 4.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	S: 1.98
(081003)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	S: 3.13
(081005)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	S: 3.13
						Y: 2.549
						Z: .000
						SCALE: .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS
(A)MACH = 0.60

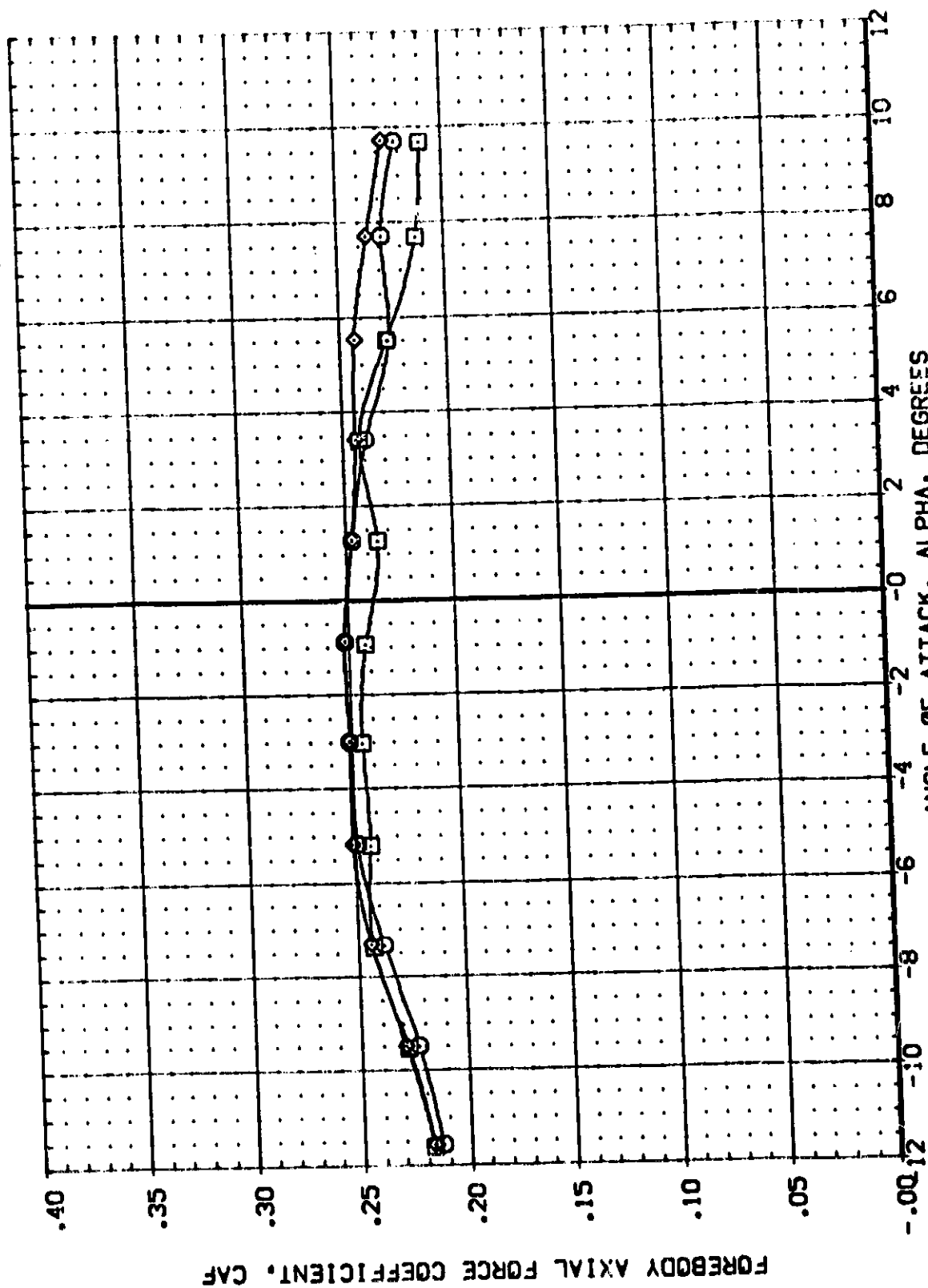
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SR9	DELTA Z	RUDDER	REFERENCE INFORMATION	SO. IN
(DB1001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(DB1002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF	5.313
(DB1003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	BREF	5.313
(DB1005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	XREF	2.549
						YREF	.000
						ZREF	.000
						SCALE	.004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SG. IN
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF	5.313
(081005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF	5.313
						XMRP	2.549
						YMRP	.000
						ZMRP	.000
						SCALE	.004

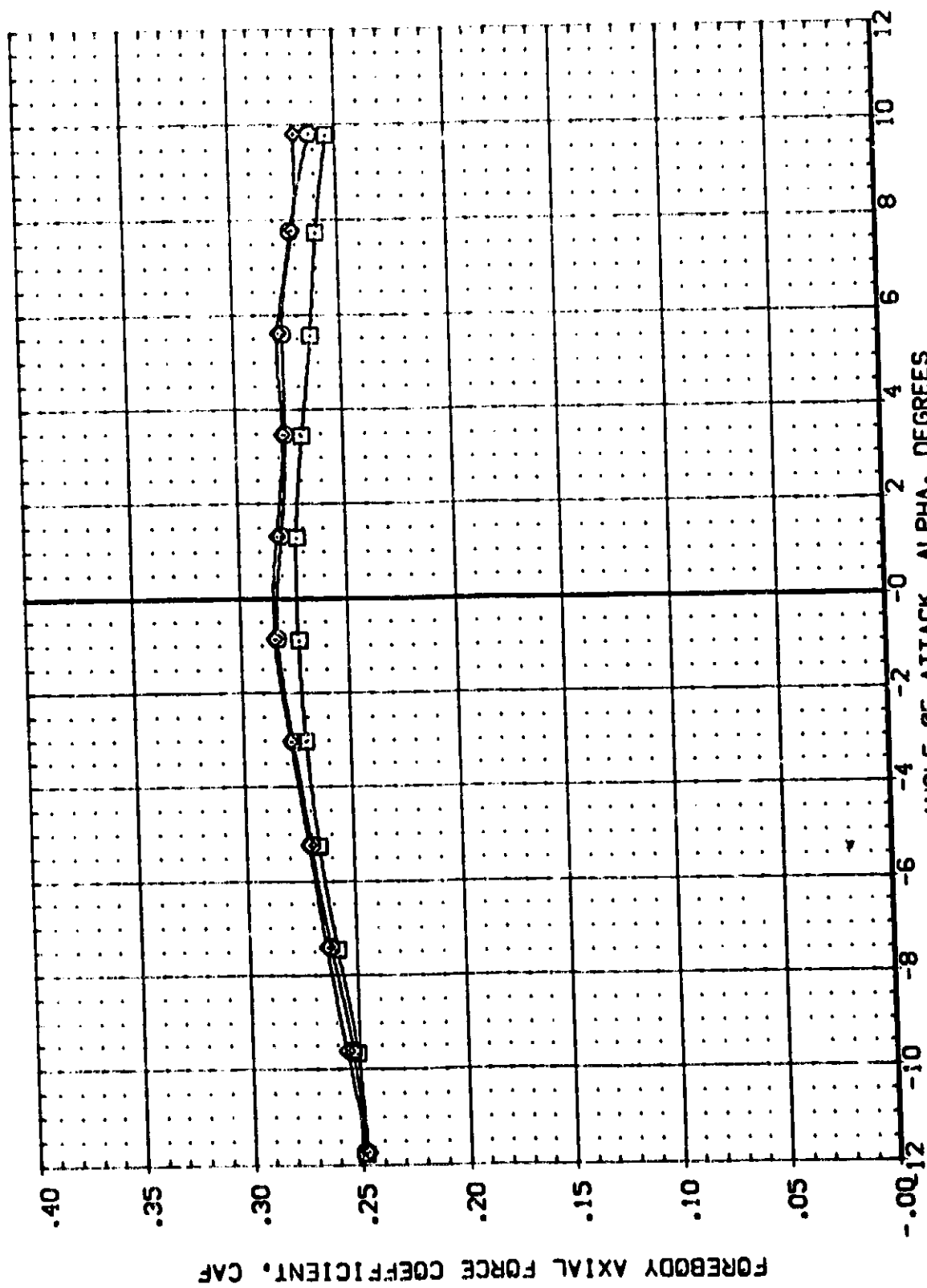


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DRB INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SC: IN
(281001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.199	IN: 22.22
(281003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313	
(281005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-1.500	.000	.136	.000	BREF 2.549	
						XPRP .000	
						YPRP .000	
						ZPRP .000	
						SCALE .004	

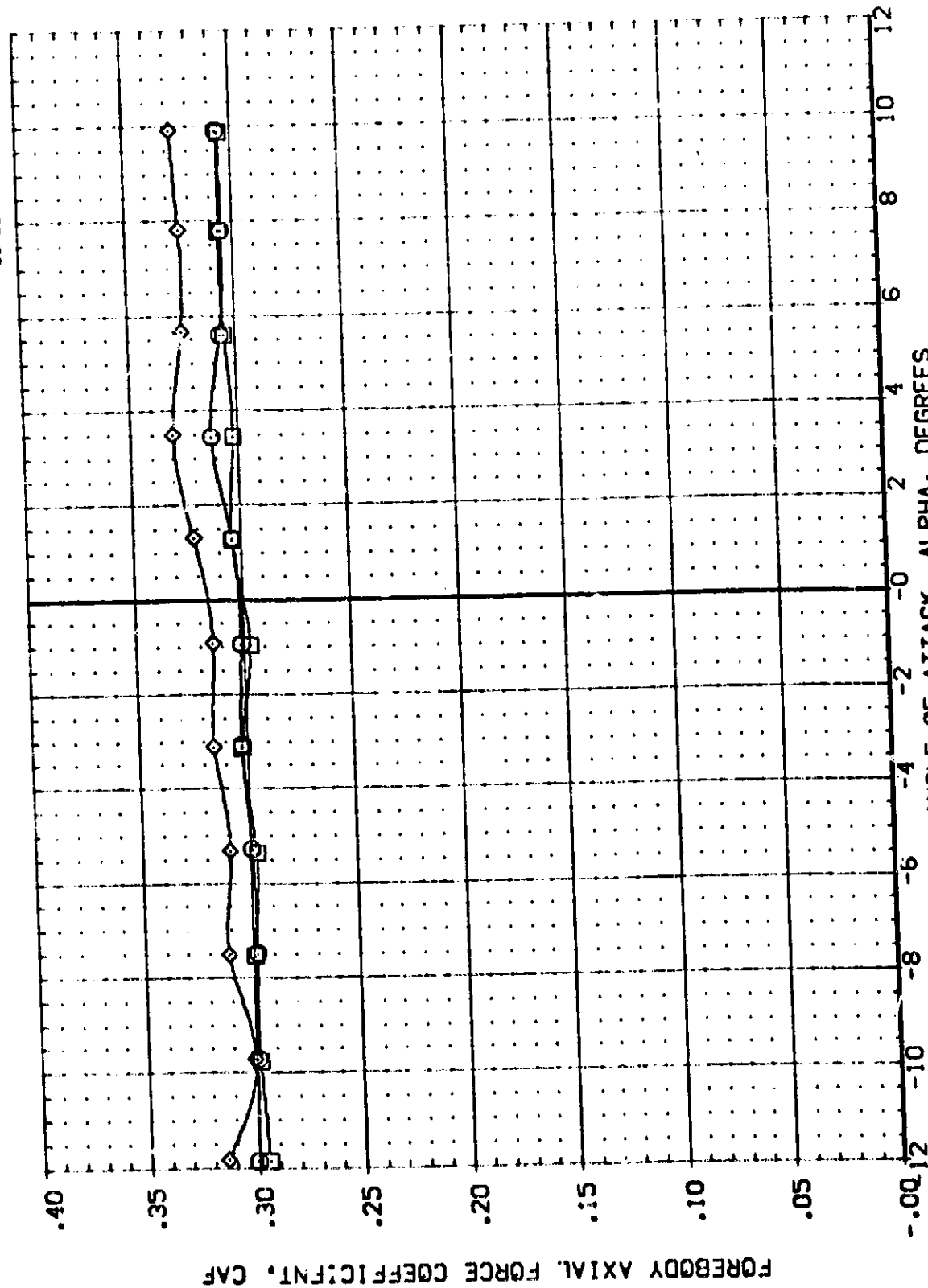


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(D)MACH = 1.25



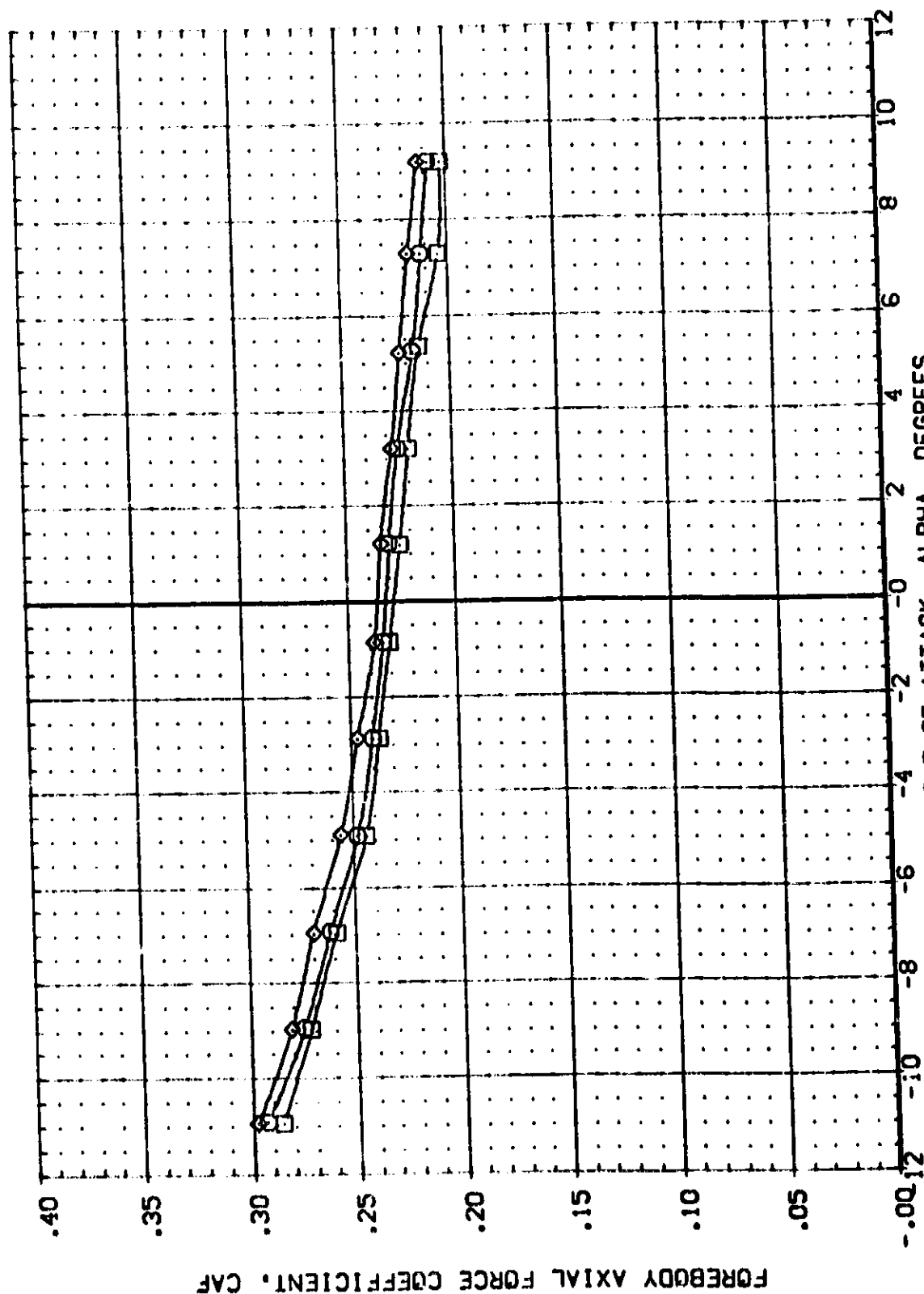
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3	.500	.000	.136	.000	SREF 6.198
(081002)	MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3	1.500	.000	.136	.000	LREF 5.313
(081003)	MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3		.000		.000	BREF 2.549
						XPRP .000
						YPRP .000
						ZPRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3		.500	.000	.135	.000	SREF 5.198
MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3		-.500	.000	.135	.000	SREF 5.313
MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3		1.500	.000	.135	.000	SREF 5.313
						XREF 2
						YREF .0000
						ZREF .0000
						SCALE .004

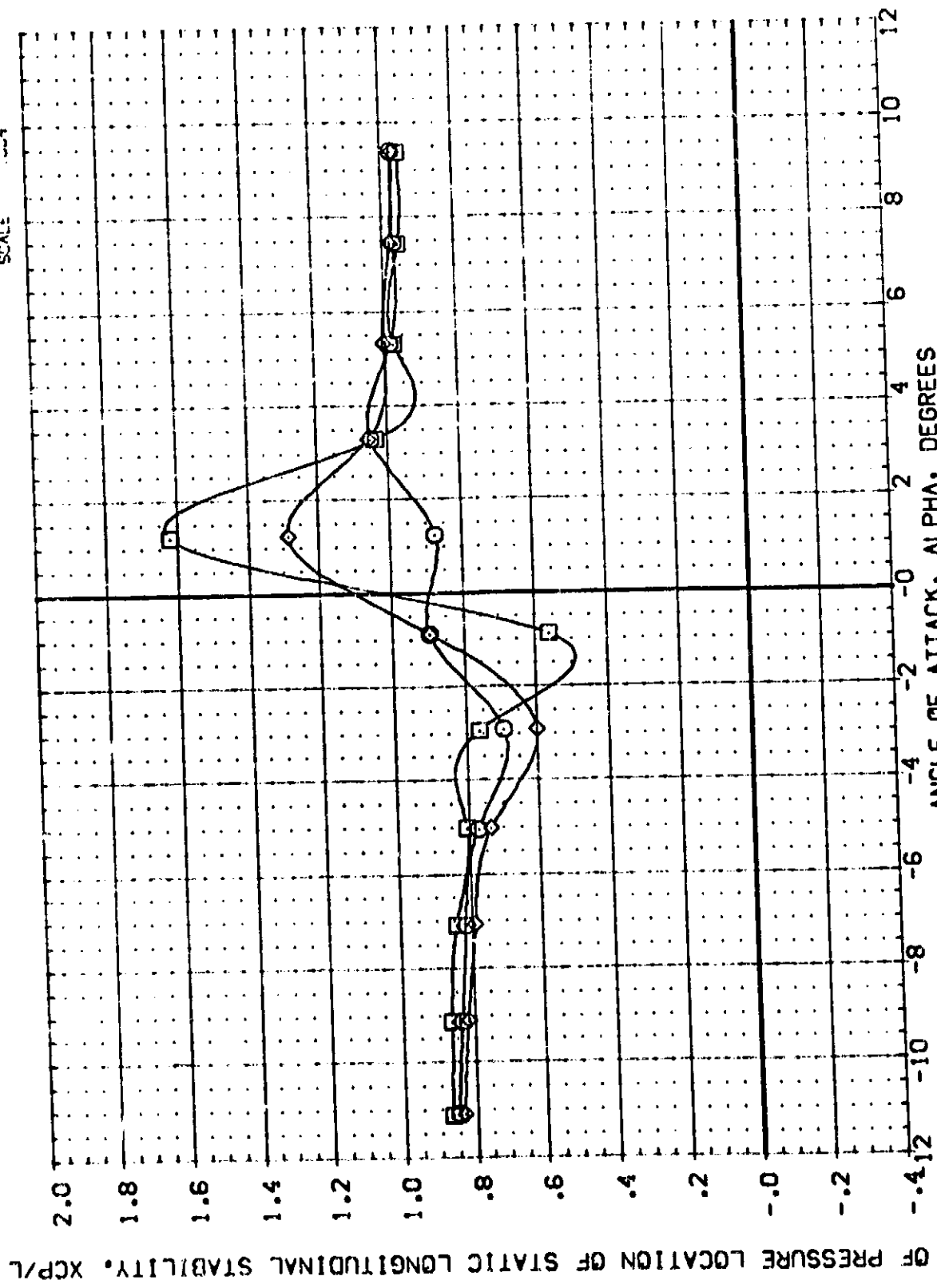


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(G)MACH = 4.96



DATA SET SYMB.	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(001)	1550 588 (1A31E) FOR 0074 LV 03 19 83	.500	.000	.136	.000	SREF 6.198
(002)	1550 588 (1A31E) FOR 0074 LV 03 19 83	.500	.000	.136	.000	LREF 5.313
(003)	1550 588 (1A31E) FOR 0074 LV 03 19 83	.500	.000	.136	.000	BREF 5.313
(004)	1550 588 (1A31E) FOR 0074 LV 03 19 83	.500	.000	.136	.000	XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004

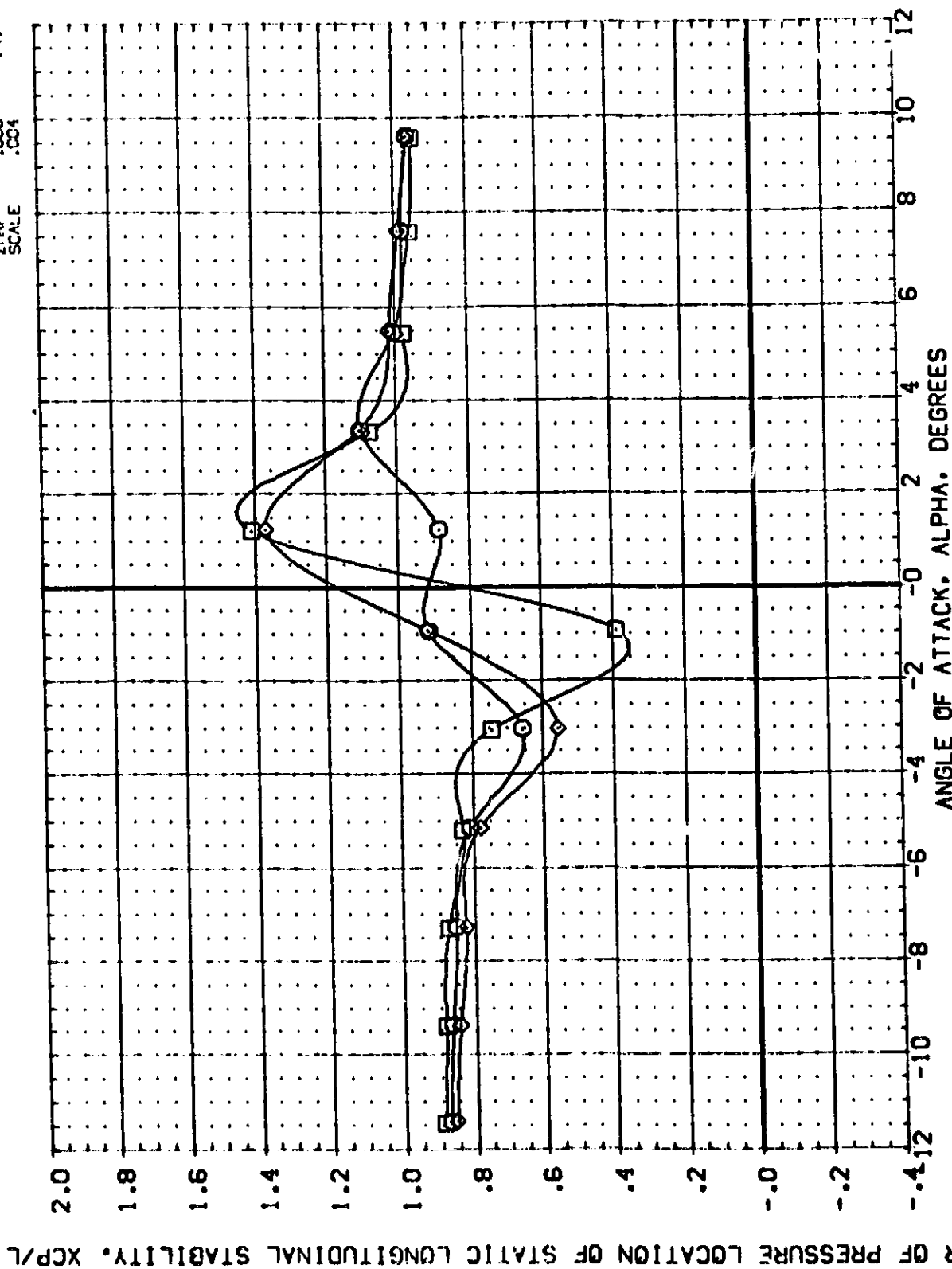


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (08)001) C10 MFC 566 (A3:F) MCR 0074 LV 03 19 S3
 (08)002) C10 MFC 566 (A3:F) MCR 0074 LV 03 19 S3
 (08)003) C10 MFC 566 (A3:F) MCR 0074 LV 03 19 S3
 (08)004) C10 MFC 566 (A3:F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 500 .000 .000 SREF 6.198
 -500 .000 .000 LREF 5.313
 1.500 .000 .000 BREF 2.549
 XPRP .000
 YPRP .000
 ZPRP .000
 SCALE .004

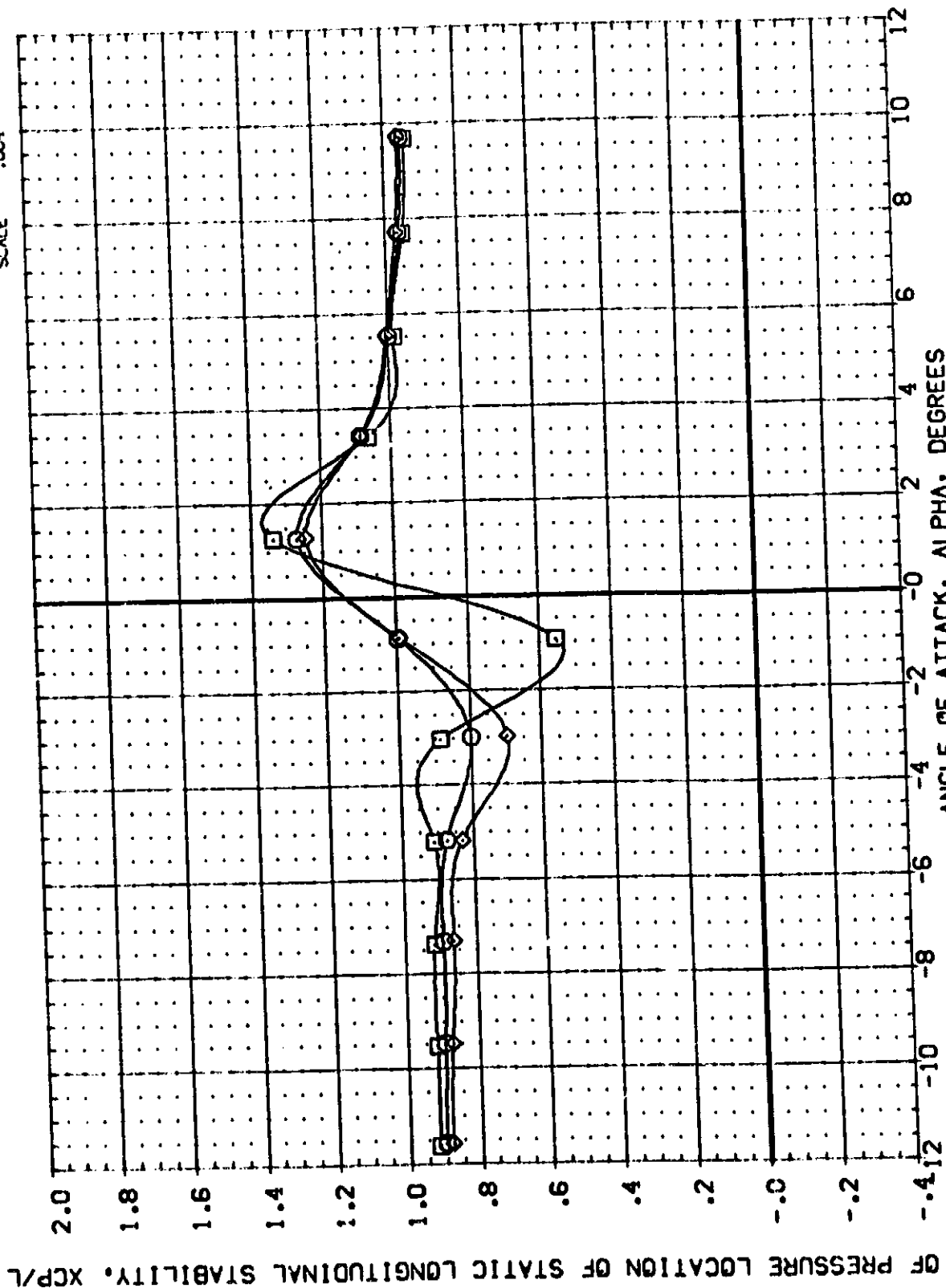


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.9:



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
(DB1001)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198 IN.
(DB1002)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF	5.313 IN.
(DB1005)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF	5.313 IN.
						XPRP	2.549 IN.
						YPRP	.000 IN.
						ZPRP	.000 IN.
						SCALE	.004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

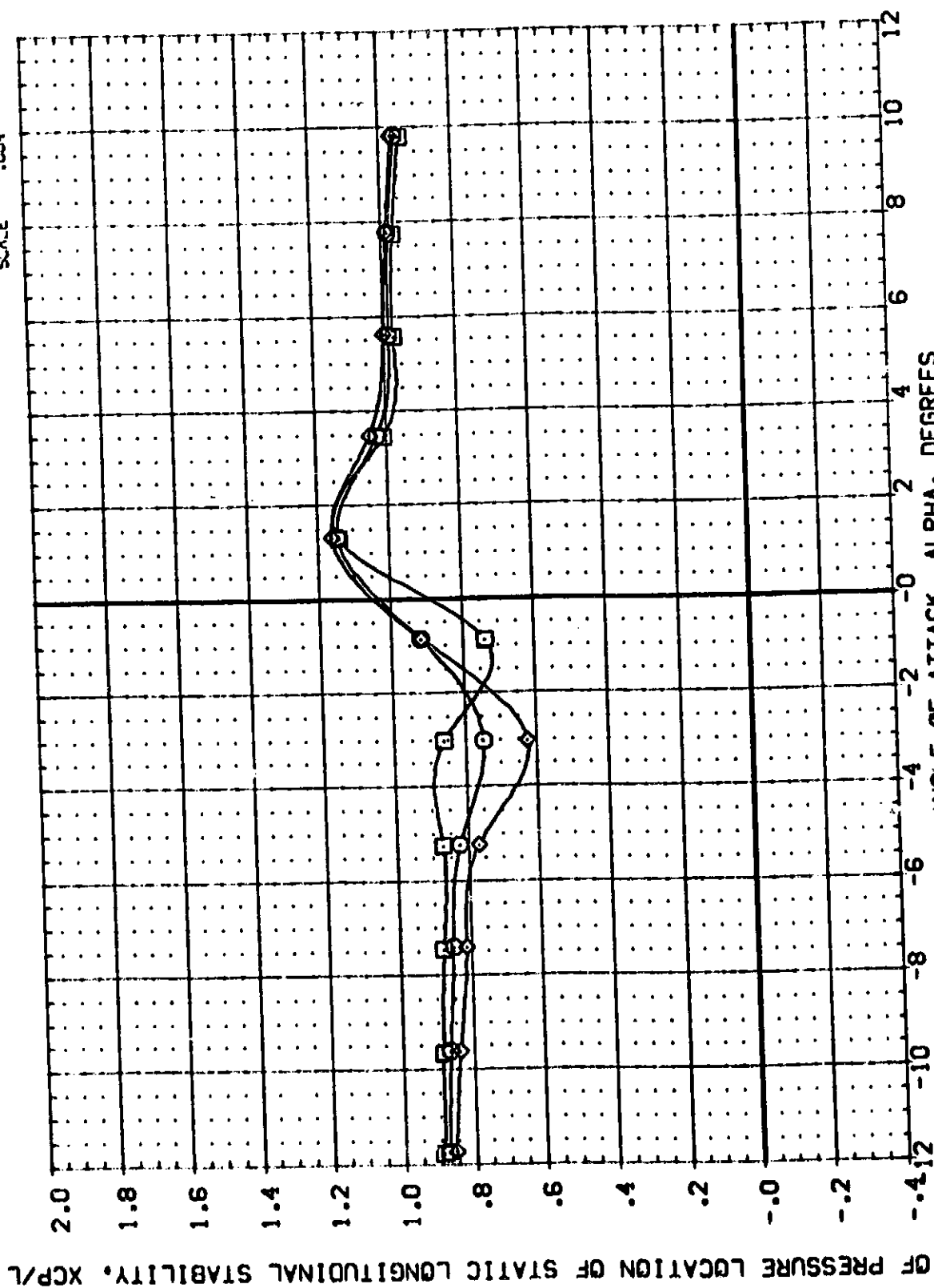
(C)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION

MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBIT X-SRB DELTAZ RUDDER REFERENCE INFORMATION SQ. IN

500 .000 .000 SREF 6.198
 -500 .000 .000 LREF 5.213
 1.500 .000 .000 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004

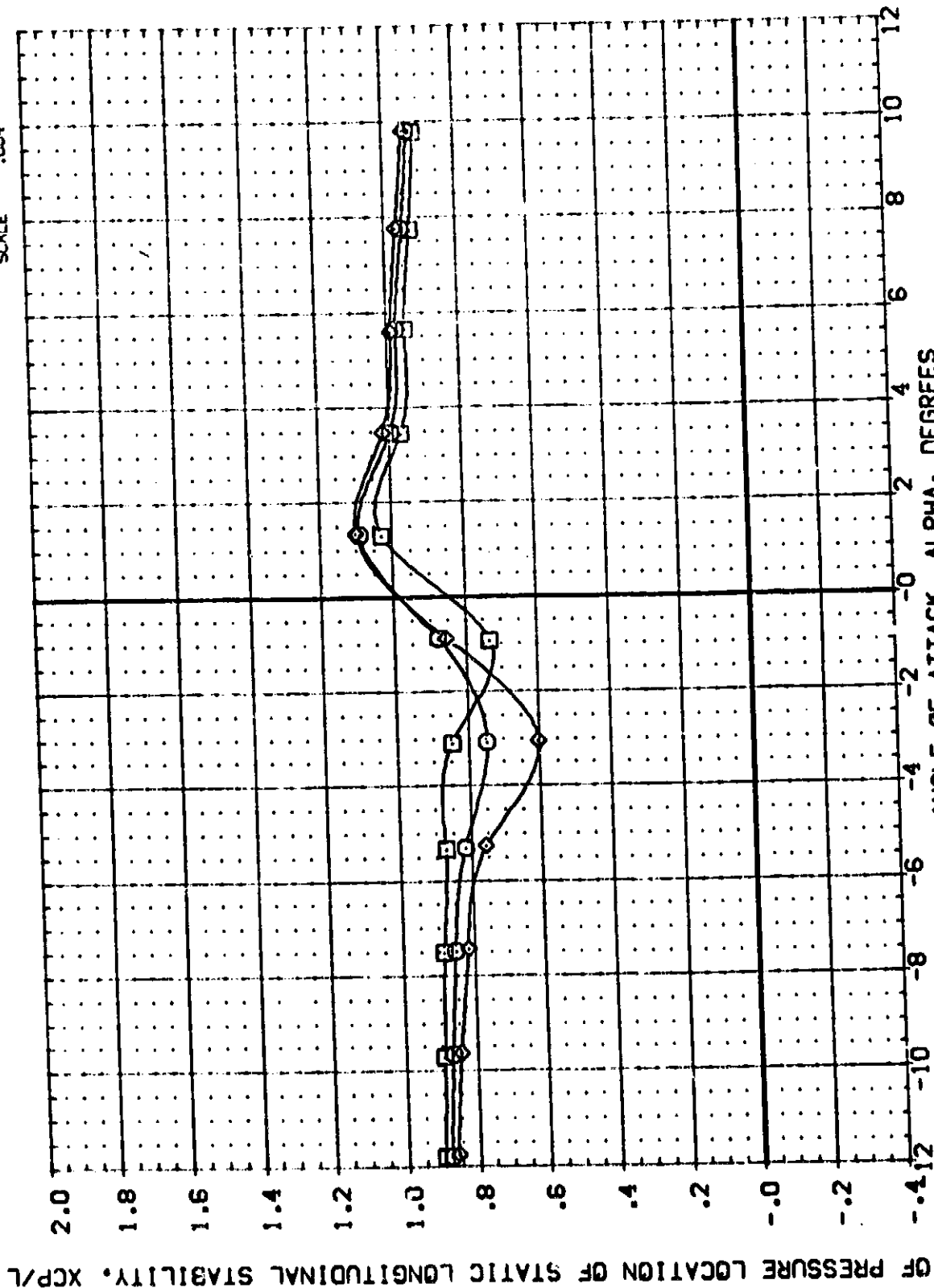


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(O)MACH = 1.25

DATA SET SYMBOL CONFIGURATION DESCRIPTION

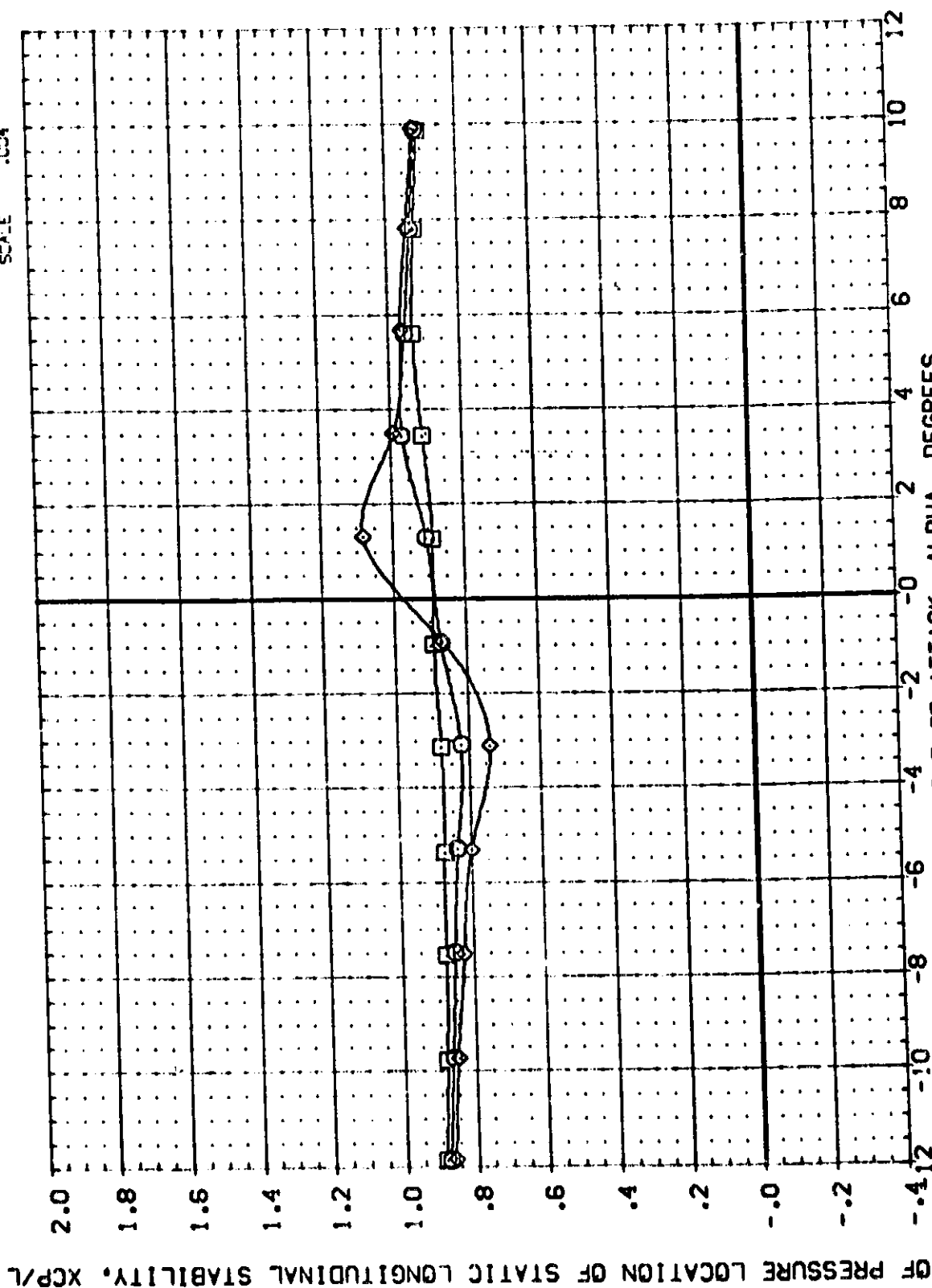
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313
(081005)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(E)MACH = 1.45

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION
(281001)	MSC 565 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(281003)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313
(281005)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.546
						YREF .000
						ZREF .000
						SCALE .004

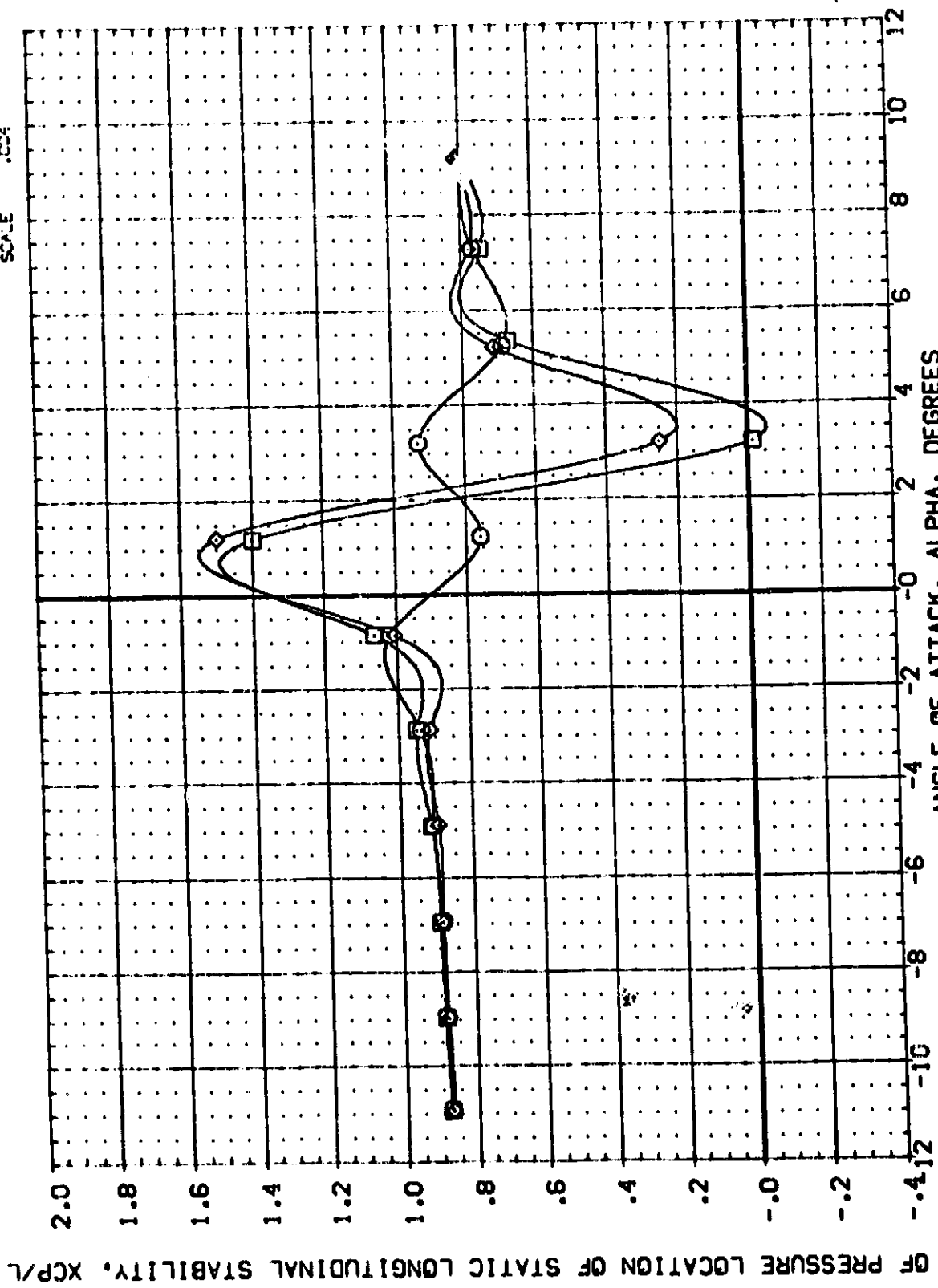


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(F)MACH = 1.96



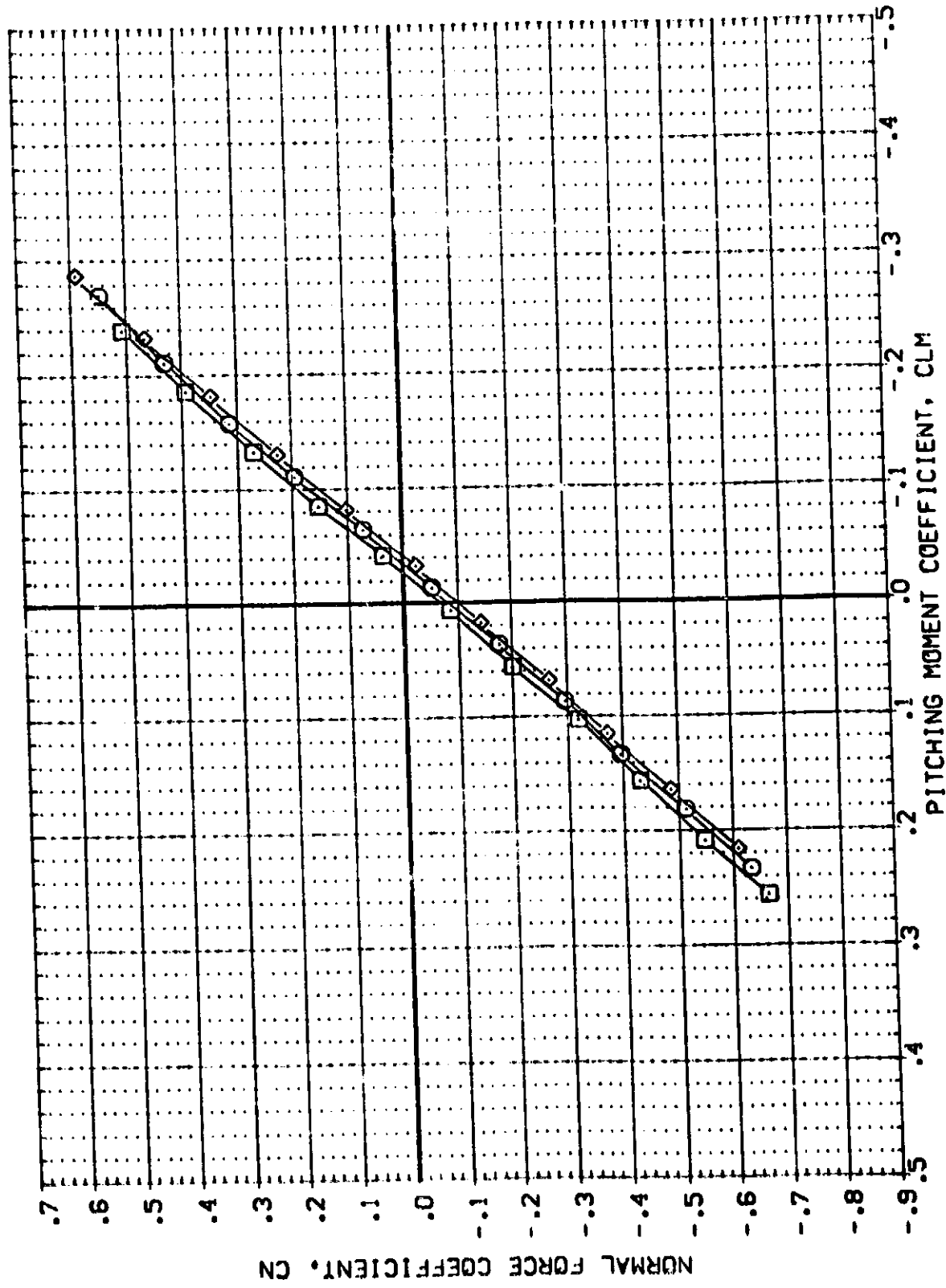
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-598	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081002)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313
(081003)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
(081005)						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .001



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ROD	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF 6.198
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	-1.500	.000	.136	.000	REF 5.313
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	1.500	.000	.136	.000	SREF 5.313
						XREF 2.548
						YREF .000
						ZREF .000
						SCALE .004

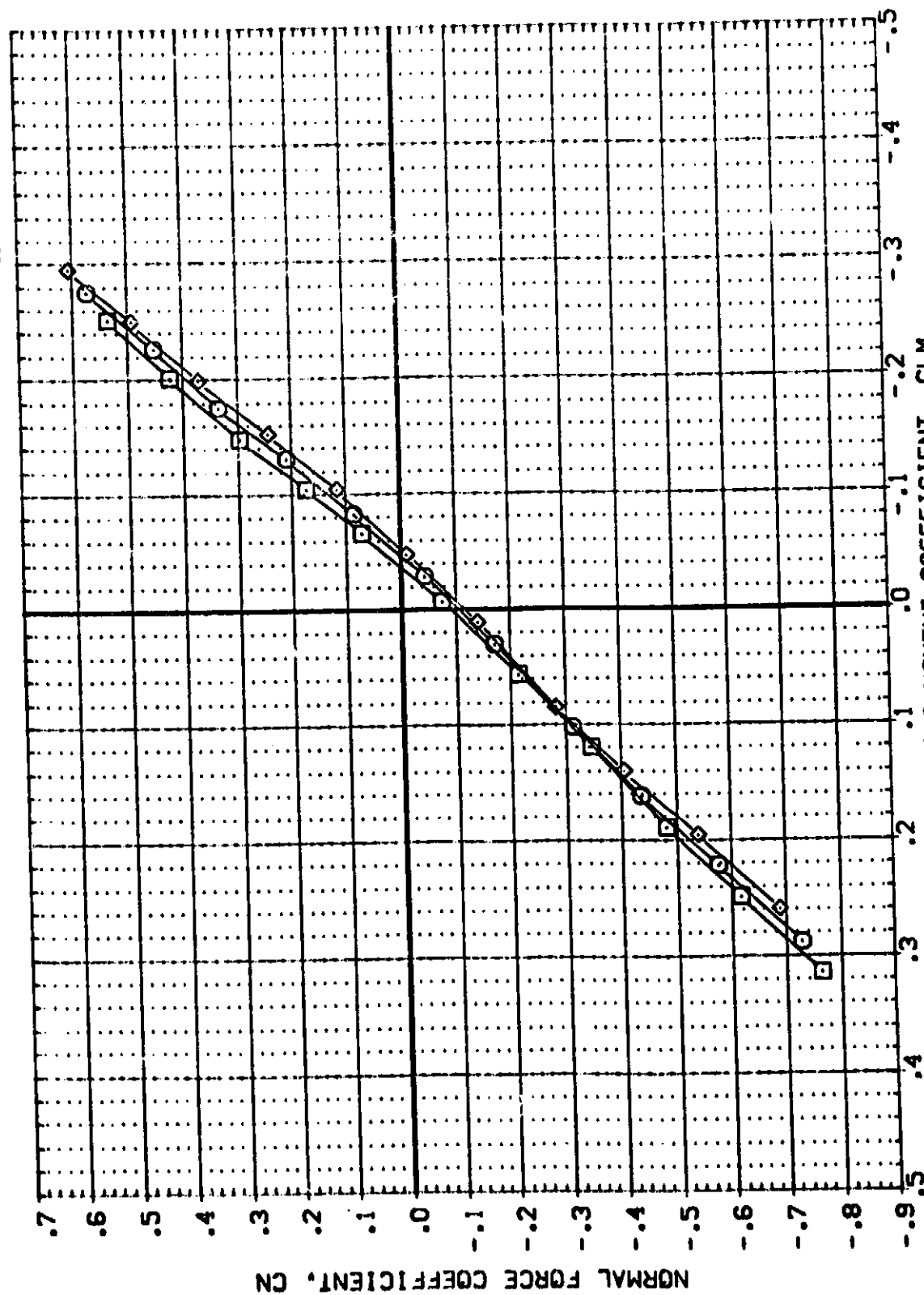


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(A) MACH = 3.60



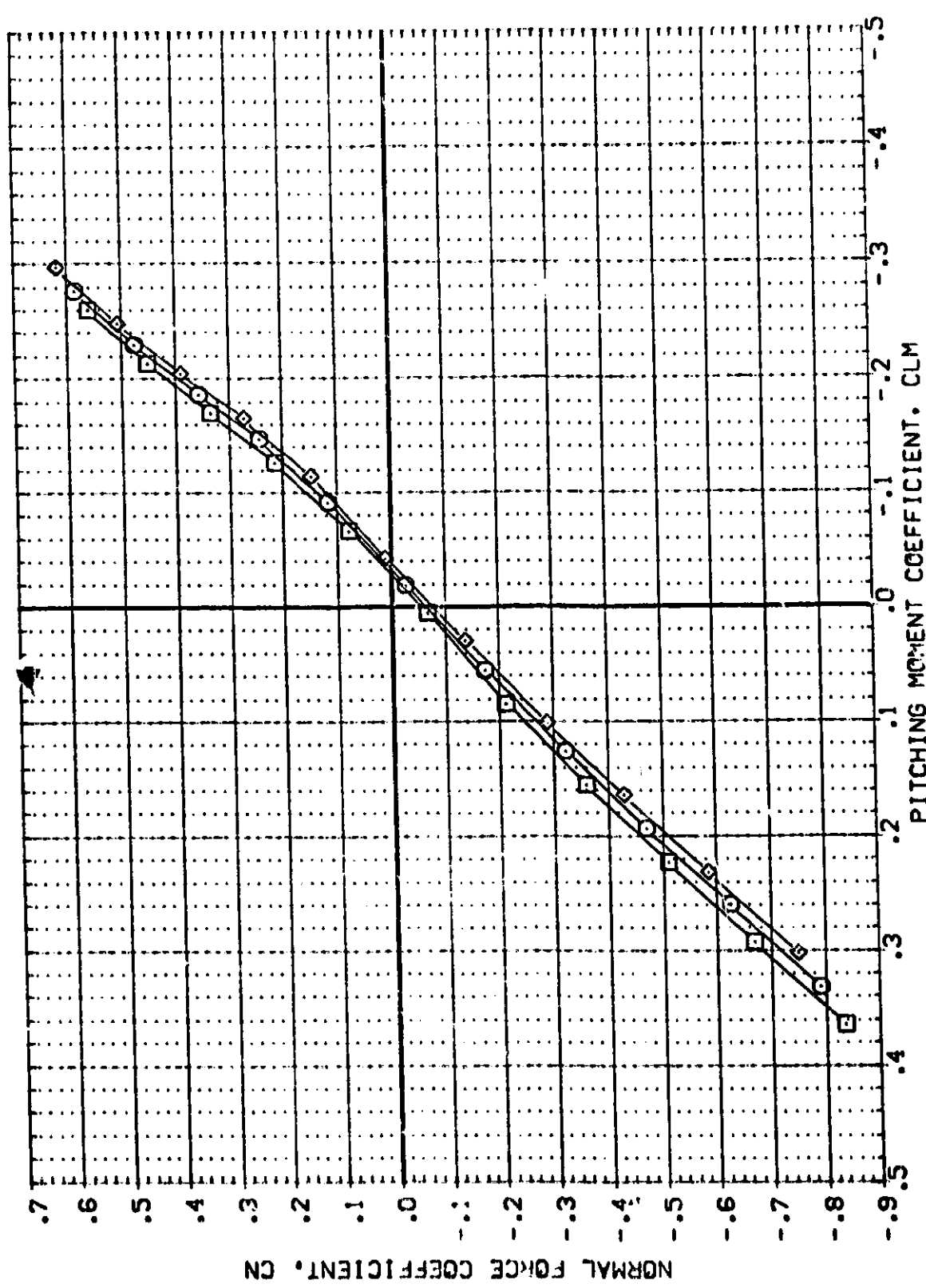
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT	X-598	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF 5.198
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	LREF 5.313
(081003)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	1.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .003



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SPR	DELTA Z	R-DOSE	REFERENCE INFORMATION
08:001	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
08:003	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
08:005	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004



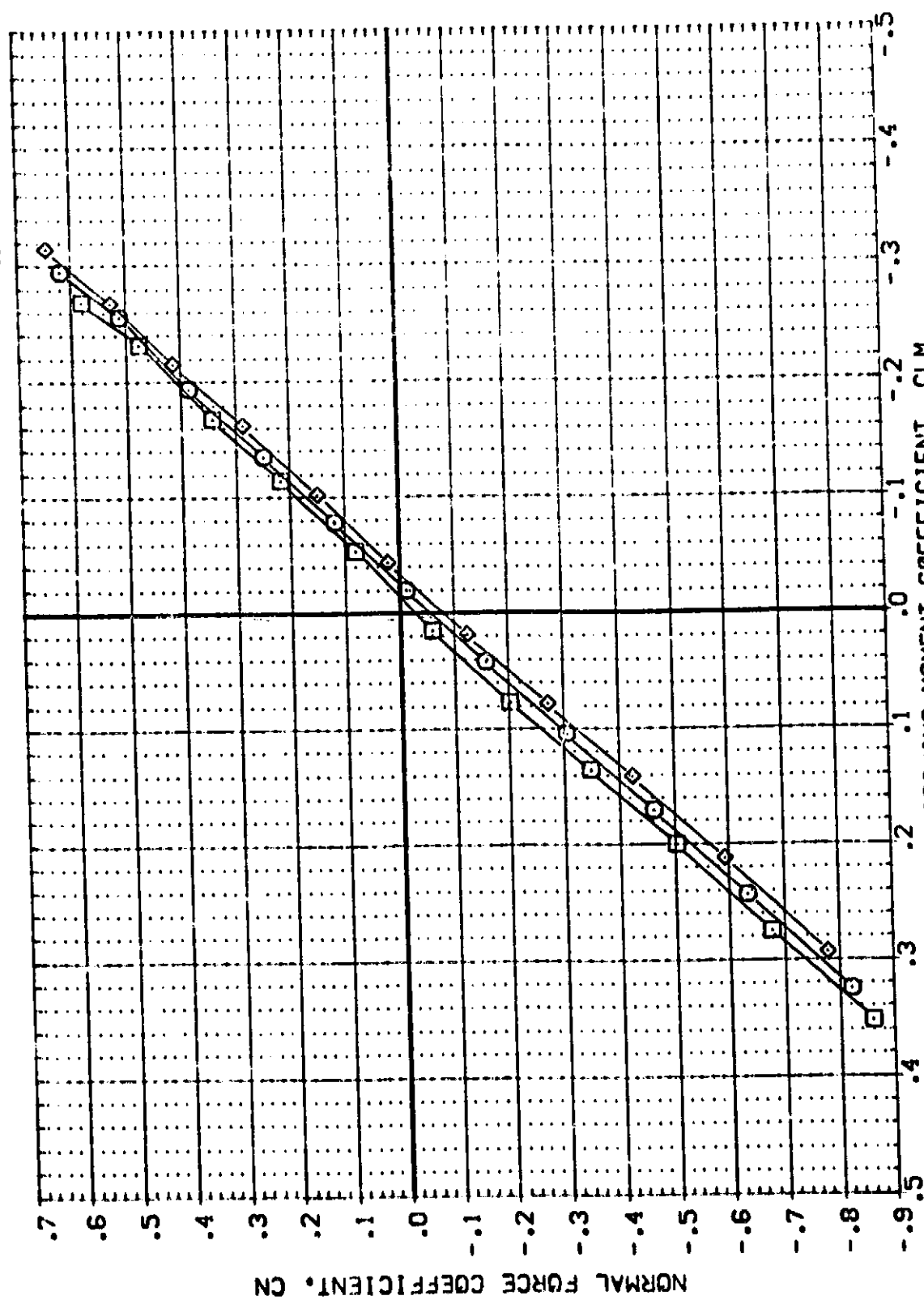
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05



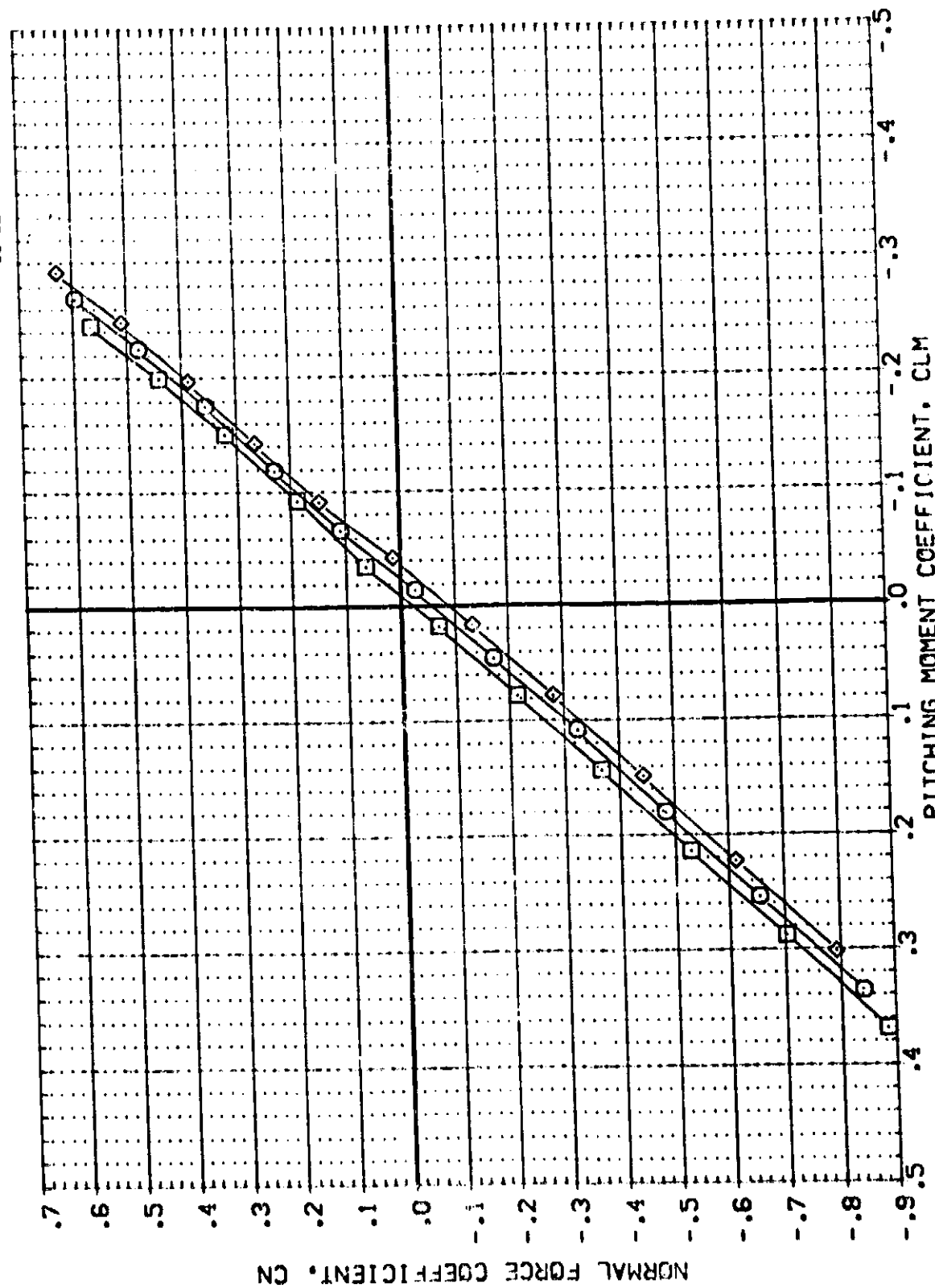
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(08:001) Q MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
(08:003) Q MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
(08:005) Q MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z R-ODER REFERENCE INFORMATION
.500 .000 .000 SREF 6.198 SC: 1N
1.500 .000 .000 REF 5.313
1.500 .000 .000 BREF 5.313
X-SRB X-SRB X-SRB 2.049
V-SRB .000
Z-SRB .000
SCALE .004



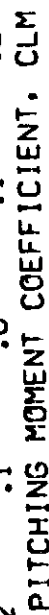
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(0.25)MACH = 1.25

[illegible]

EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

CE)WACH = 1.45

[illegible]

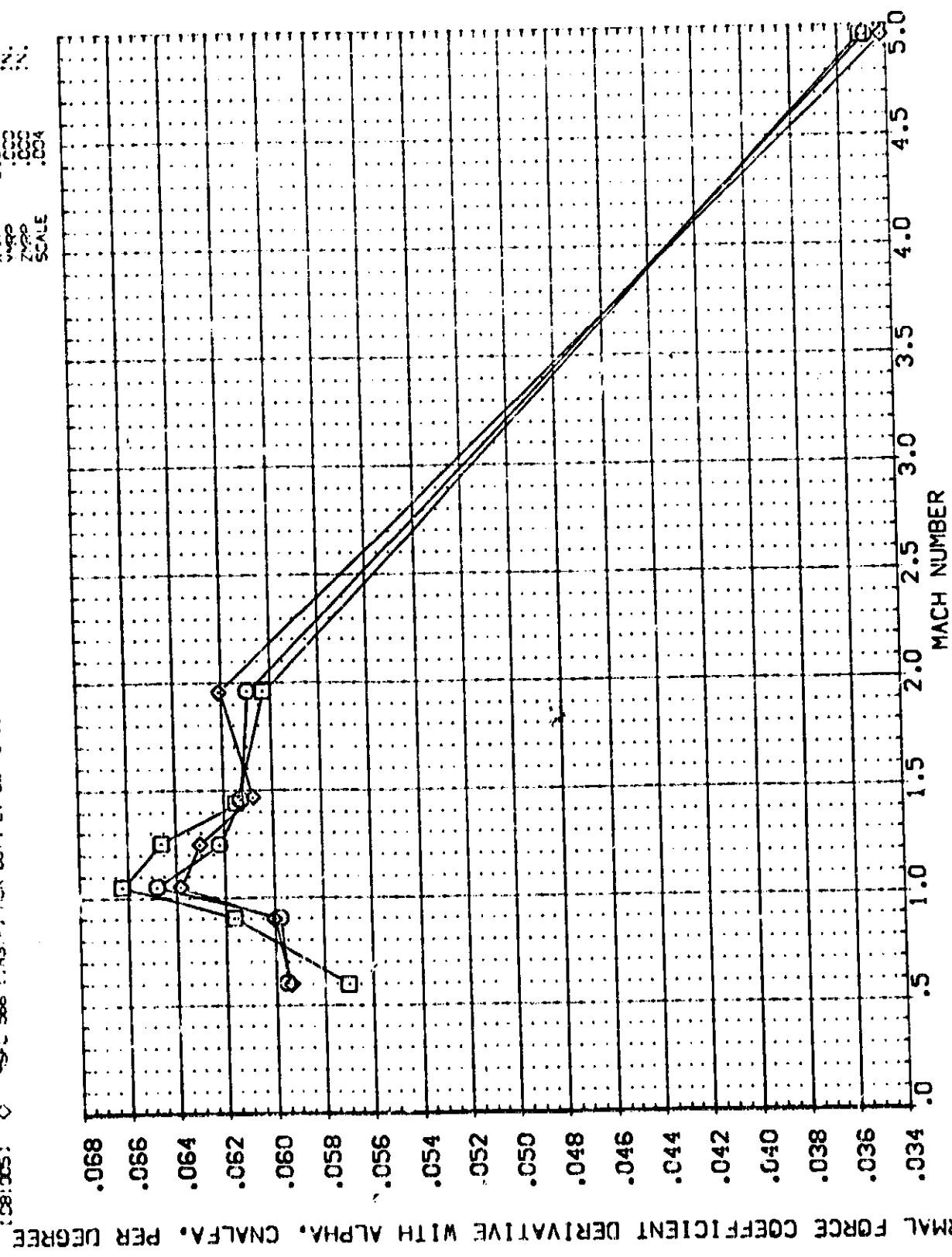
37
11670

96.7 = 104.5

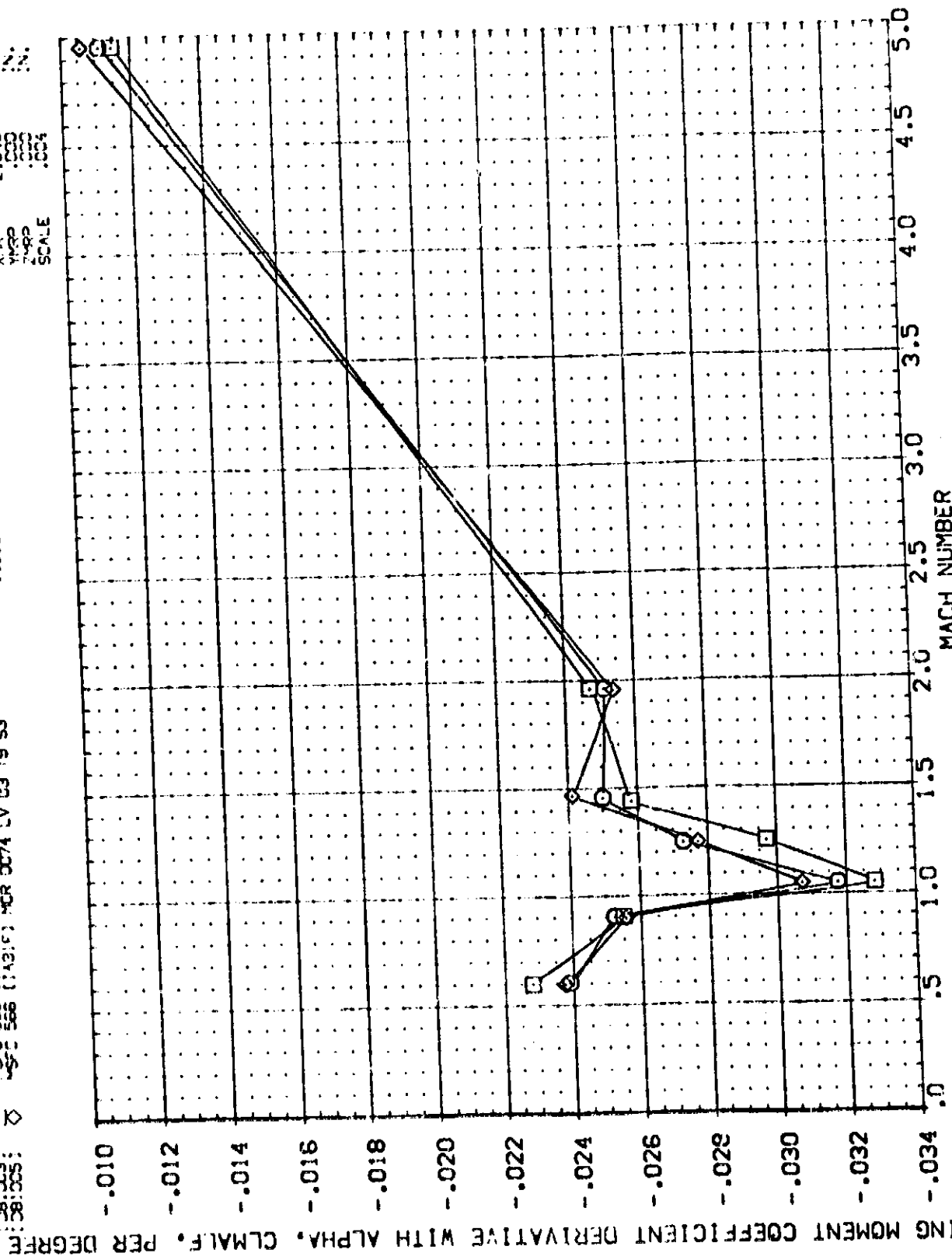


DATA SET 580L CONFIGURATION DESCRIPTION ORBITAL X SRB DELTA Z RUDDER REFERENCE INFORMATION

DATA SET 580L	CONFIGURATION DESCRIPTION	ORBITAL	X SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 5.198
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	BREF 5.313
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	XVREF 2.548
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	YVREF .000
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	ZVREF .000
580L 586	1A31F MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SCALE .004

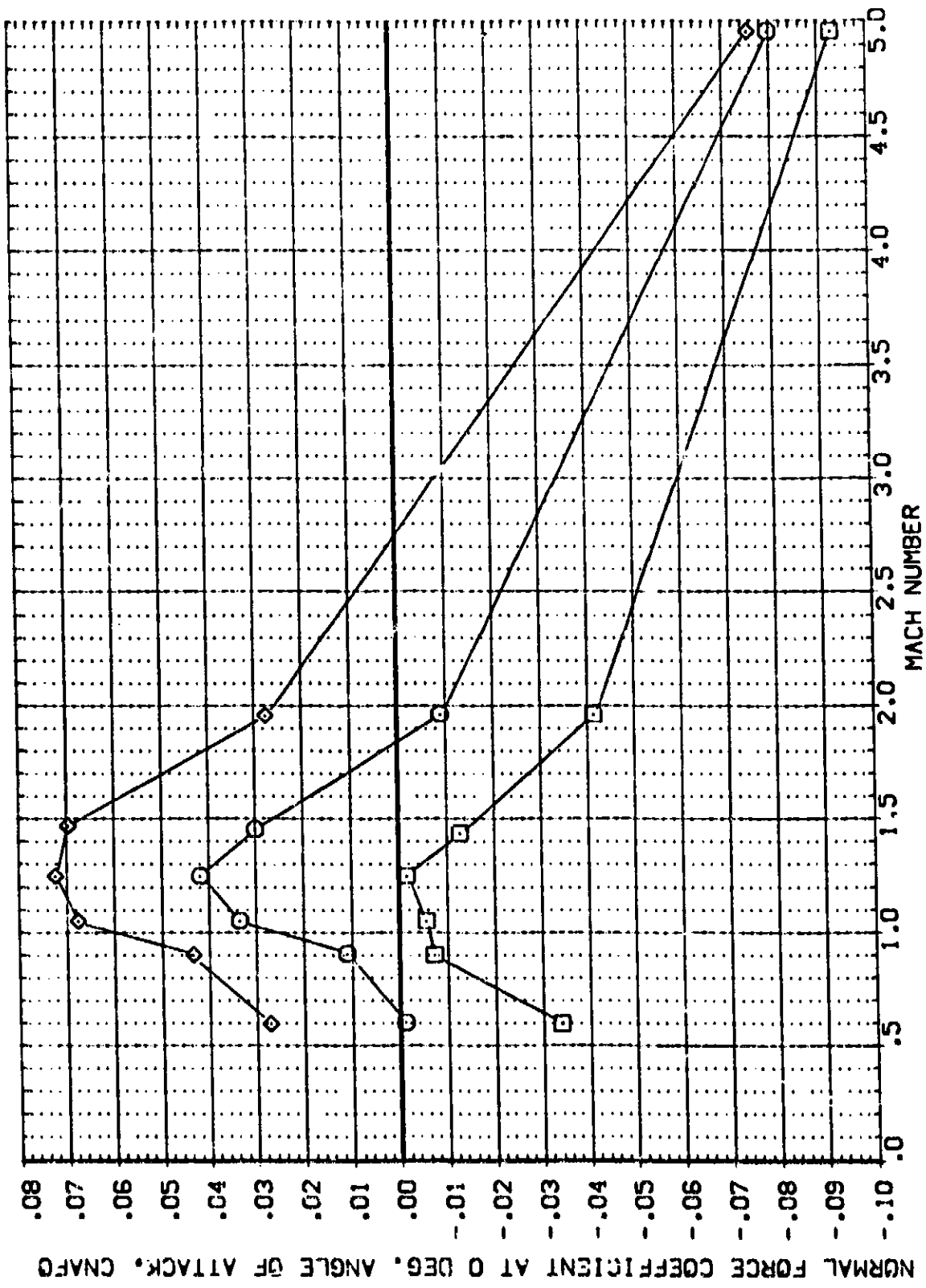


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

[illegible]

EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
[08:001]	MSFC 566 (A31F) PCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
[08:003]	MSFC 566 (A31F) PCR 0074 LV 03 T9 S3	-1.500	.000	.136	.000	LREF 5.313
[08:005]	MSFC 566 (A31F) PCR 0074 LV 03 T9 S3		.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



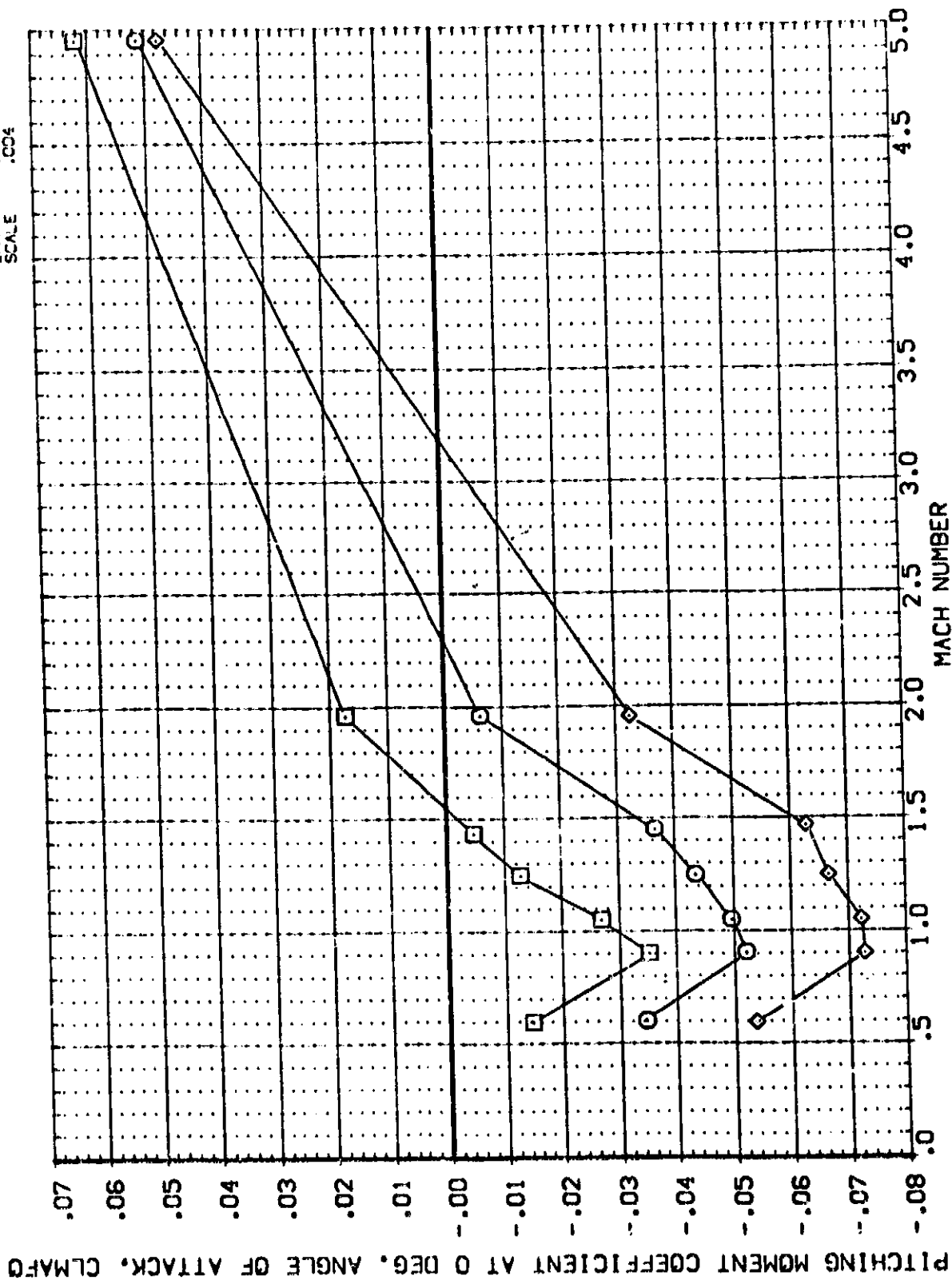
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION
081001	□	MSC 566 (1A31F)	MCR 0074 LV 03 19 S3
081003	◇	MSC 566 (1A31F)	MCR 0074 LV 03 19 S3
081005	◇	MSC 566 (1A31F)	MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

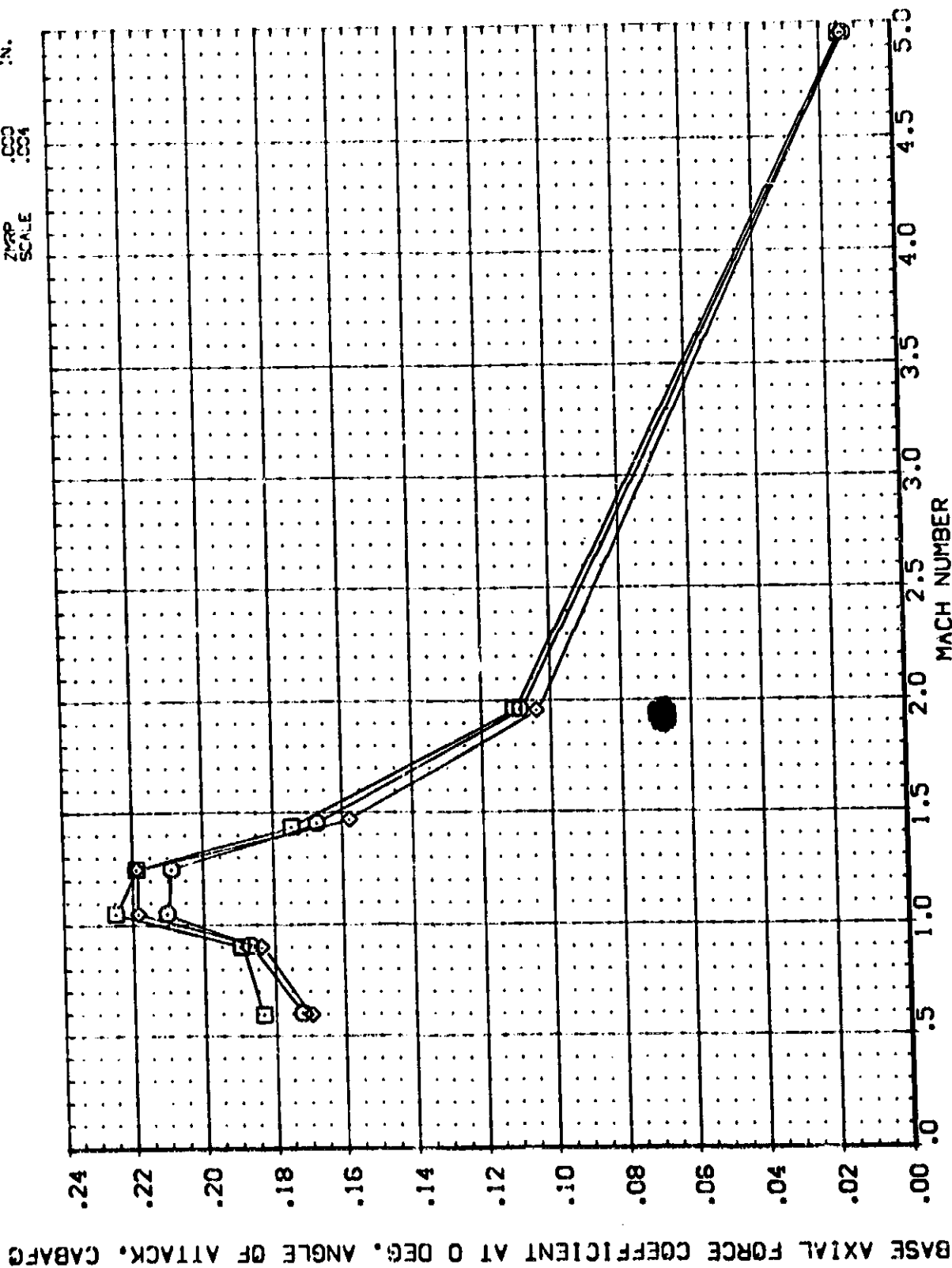
ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
500	.000	.136	.000	SREF 6.198
500	.000	.136	.000	LREF 5.313
500	.000	.136	.000	SREF 5.313
1500	.000	.136	.000	SREF 2.548
				XMRP .000
				ZMRP .000
				SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

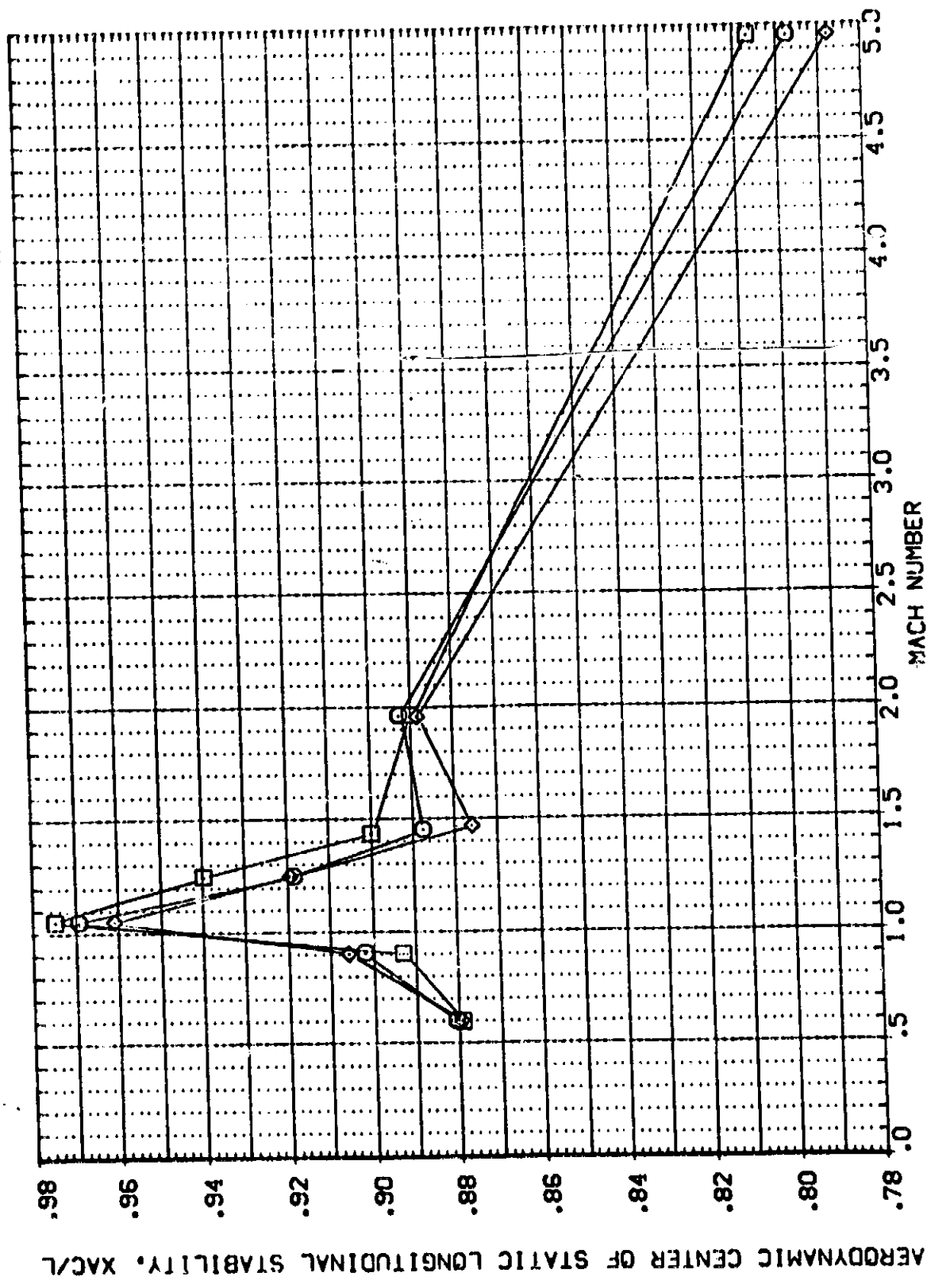
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(28:001)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.199
(28:002)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(28:003)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	BREF 5.313
(28:004)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	VREF 2.546
(28:005)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	ZREF .000
(28:006)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	ZMRP .000
(28:007)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

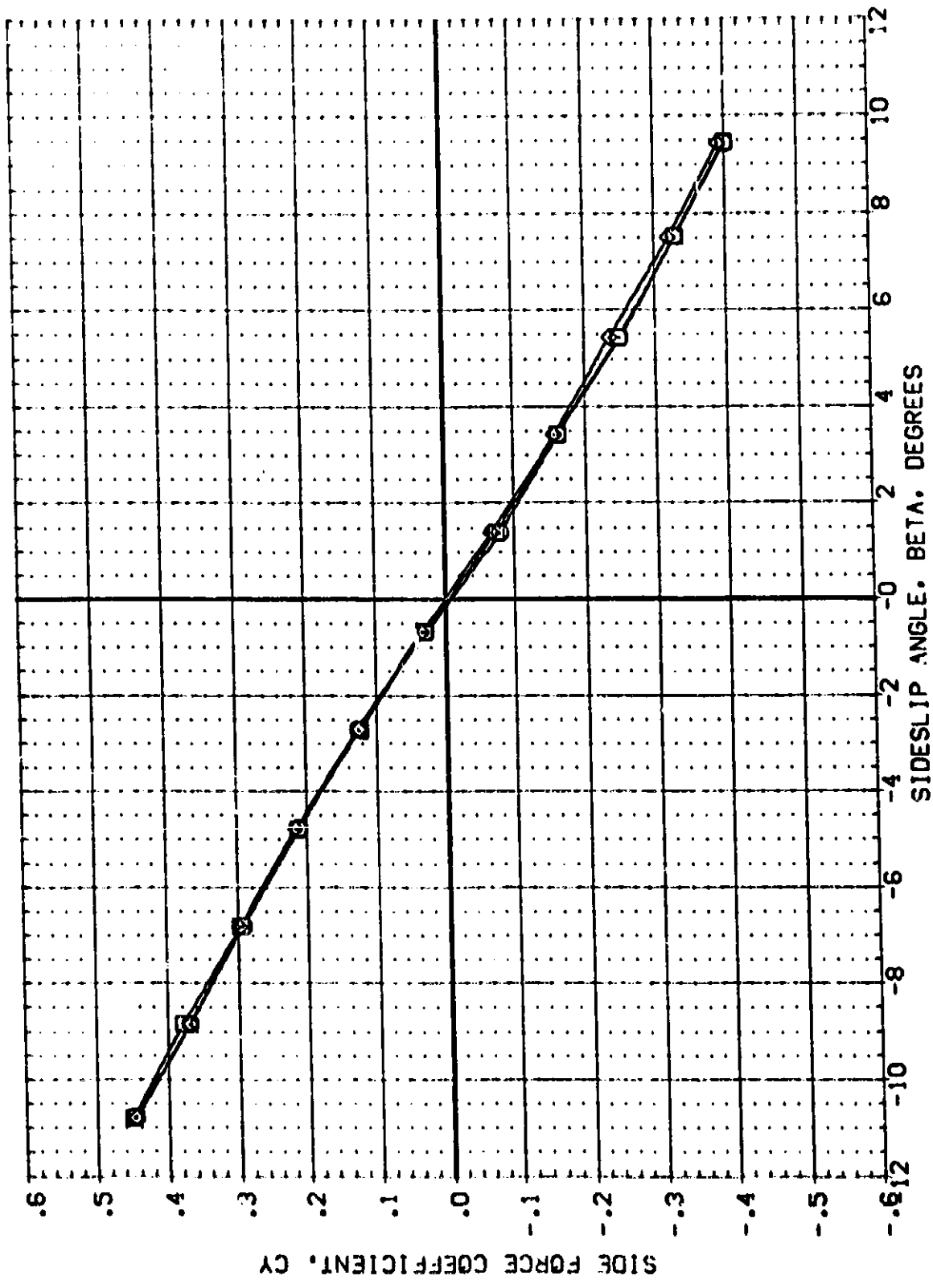
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (08) (00) (00) M5FC 566 (1A31F) MCR 0074 LV 03 19 S3
 (08) (00) (00) M5FC 566 (1A31F) MCR 0074 LV 03 19 S3
 (08) (00) (00) M5FC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRS DELTA Z RUDDER REFERENCE INFORMATION SO: IN
 .500 .000 .000 SREF 6.198
 .500 .000 .000 LREF 5.313
 .500 .000 .000 SREF 5.313
 .500 .000 .000 X-PRP 2.548
 .500 .000 .000 Y-PRP .000
 .500 .000 .000 Z-PRP .000
 .500 .000 .000 SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

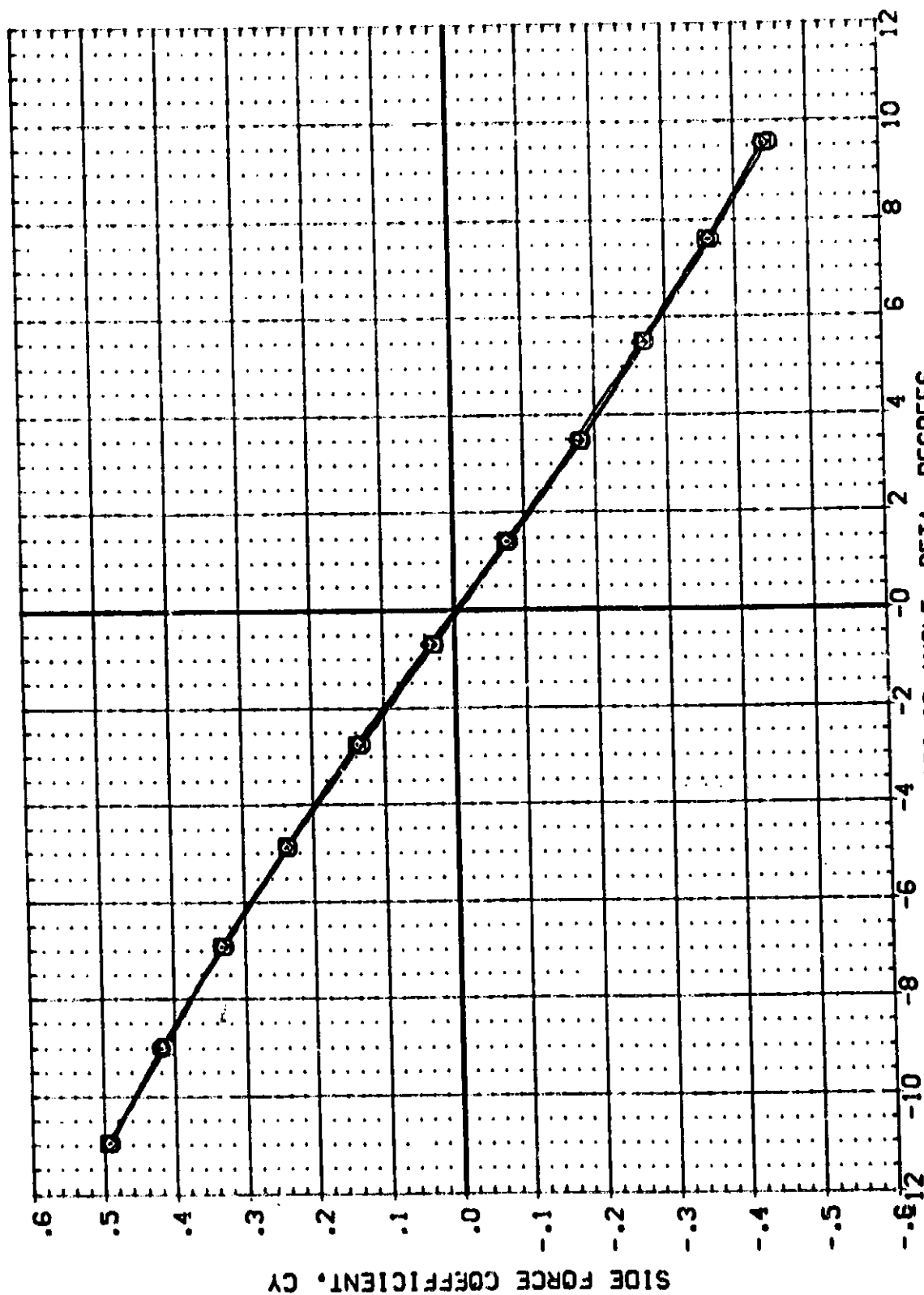
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	R-ROTOR	REFERENCE INFORMATION
[28:002] D	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 5.198
[28:004] X	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	-5.000	.000	.136	.000	LREF 5.213
[28:006] X	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.213
						XREF 2.549
						YREF 1.000
						ZREF 1.000
						SCALE 1.000



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB1002)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(DB1004)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3	-5.000	.000	.136	.000	LREF 5.313
(DB1006)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004



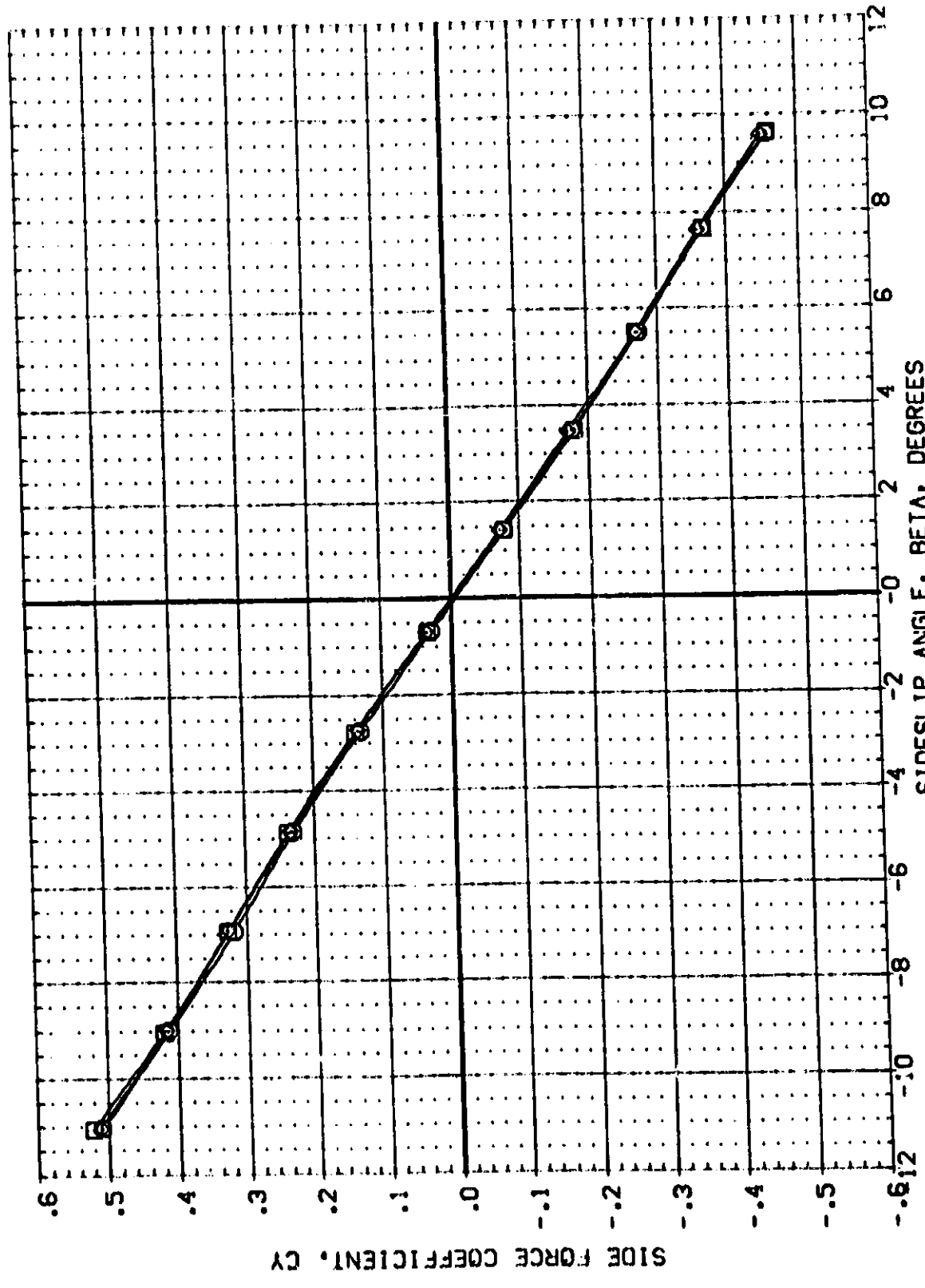
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (28) 002 (1) MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3
 (28) 004 (1) MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3
 (28) 006 (1) MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3

ORBIT INC X-SRB DELTAZ R-DOSE
 .500 .000 .136 .000
 -.500 .000 .136 .000
 1.500 .000 .136 .000

REFERENCE INFORMATION
 SREF 6.199
 XREF 5.313
 SREF 5.313
 XREF 2.549
 XREF .000
 XREF .000
 XREF .000
 SCALE .004

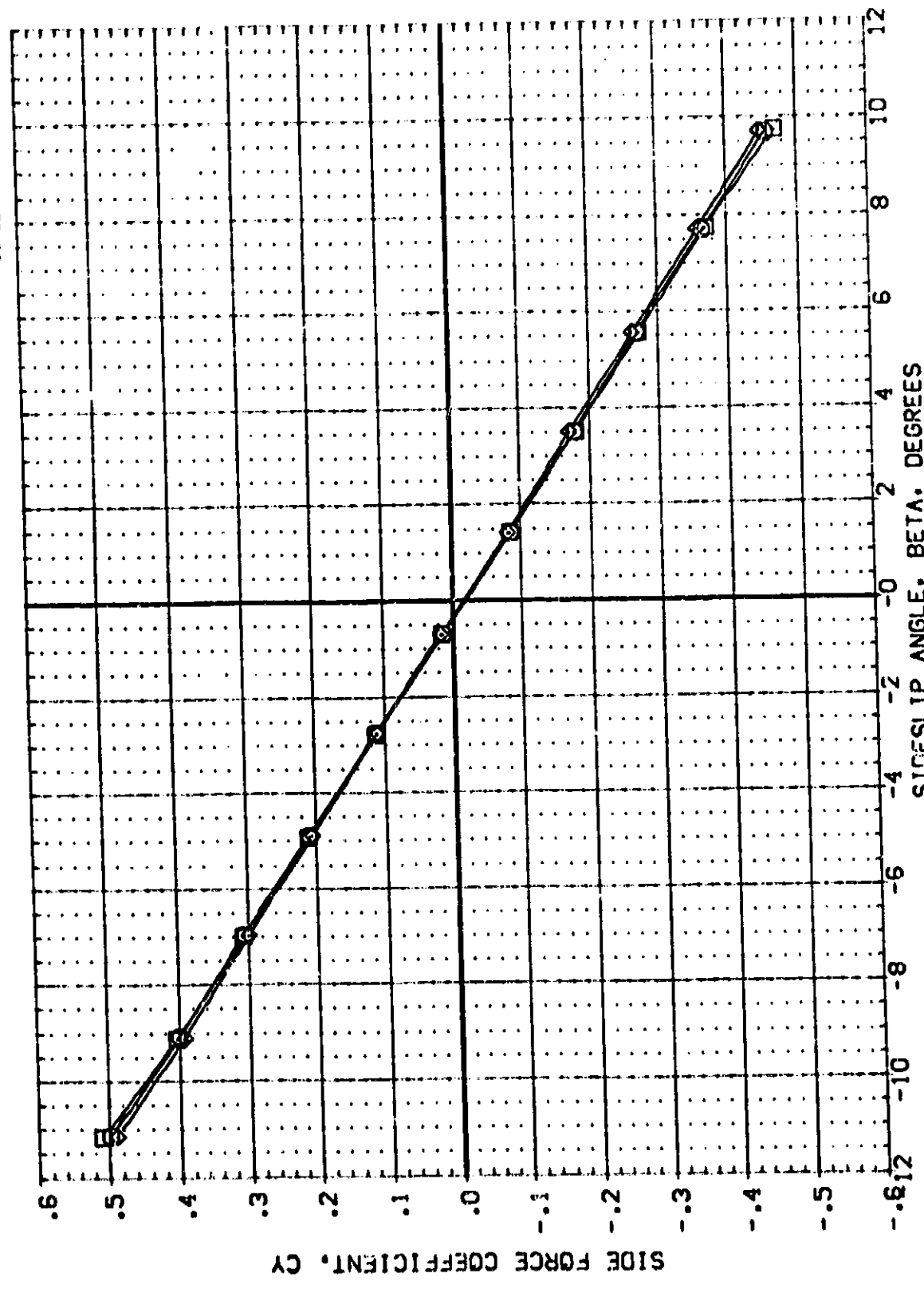


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05



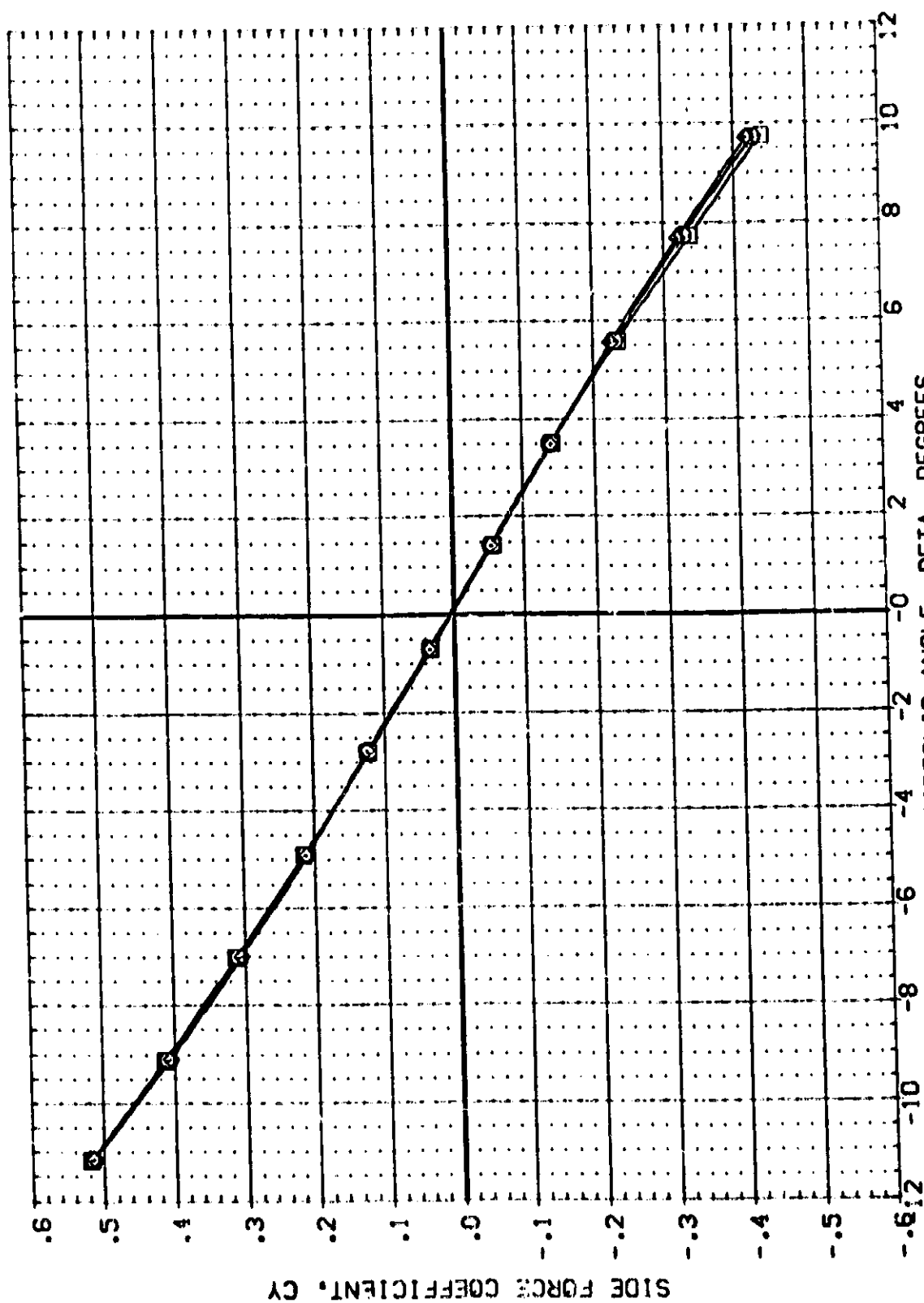
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(08)002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(08)004)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	-.500	.000	.136	.000	LRP 5.313
(08)006)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BRP 5.313
						VRP 2.248
						VRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(C)MACH = 1.25

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	CRB INC	X-SR9	DELTA Z	RUDDER	REFERENCE INFORMATION
[28:002]	MSFC 586 [1A31F] MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SCALE
[28:004]	MSFC 586 [1A31F] MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	SCALE
[28:006]	MSFC 586 [1A31F] MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	SCALE

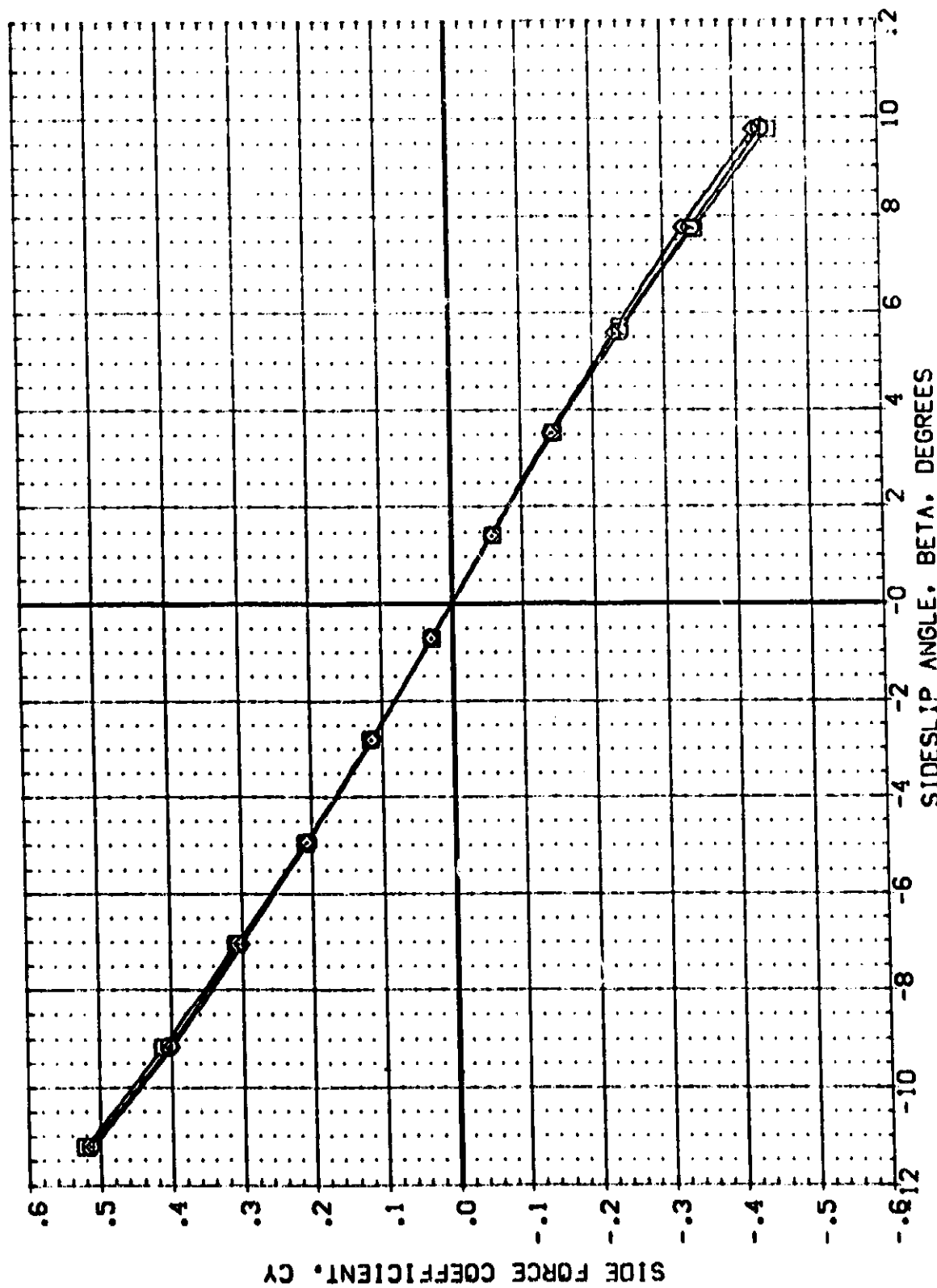


EFFECT OF CRBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORBITAL X-598 DELTA Z RUDDER REFERENCE INFORMATION

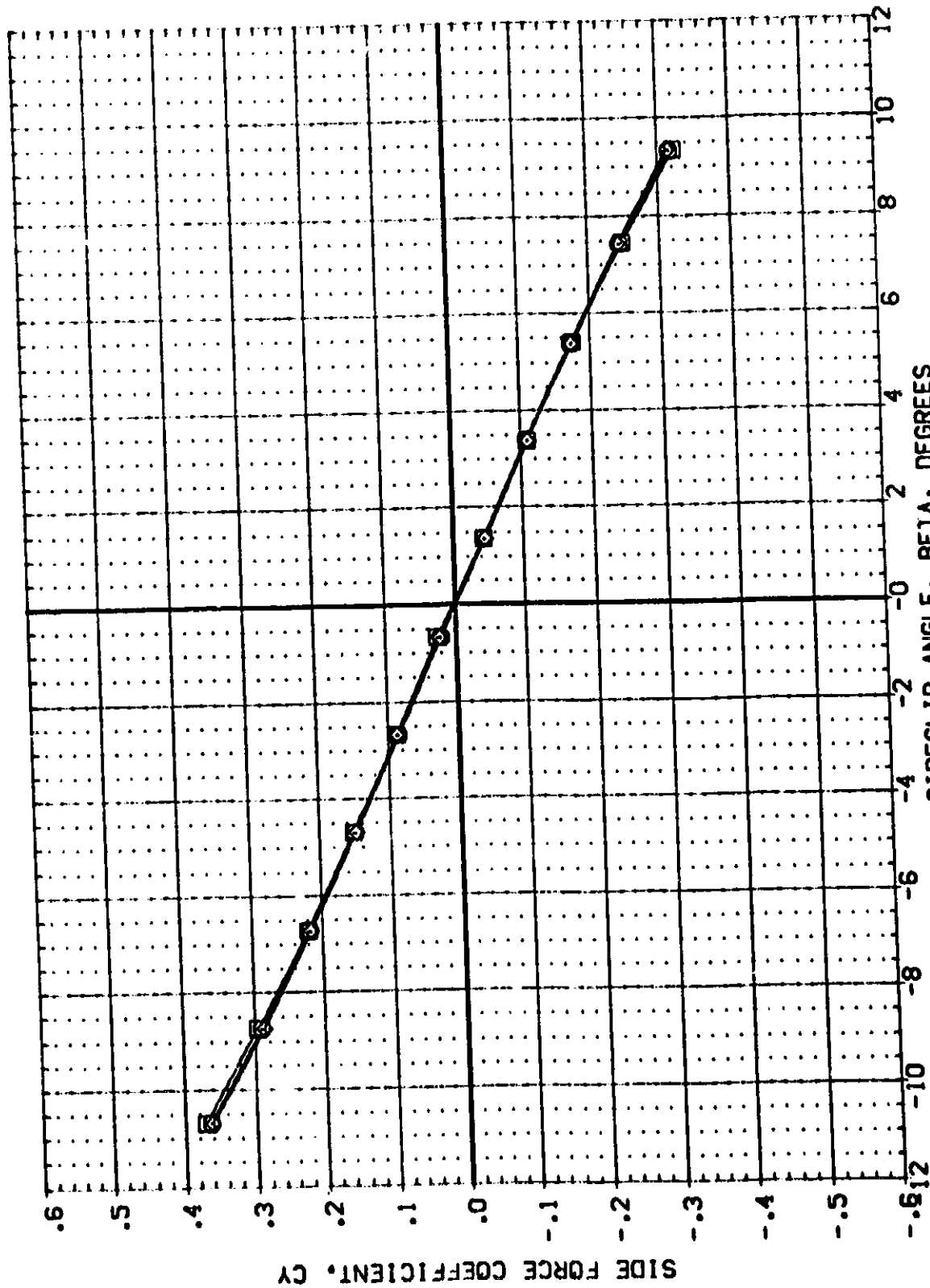
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-598	DELTA Z	RUDDER	REFERENCE INFORMATION
(081002)	□	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	6.198
(081004)	□	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	-1.500	.000	.136	.000	5.313
(081006)	◇	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	1.500	.000	.136	.000	5.313
							2.548
							.000
							.000
							.004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

[M]MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
[281002]	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.199
[281004]	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	-1.500	.000	.136	.000	LREF 5.313
[281006]	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

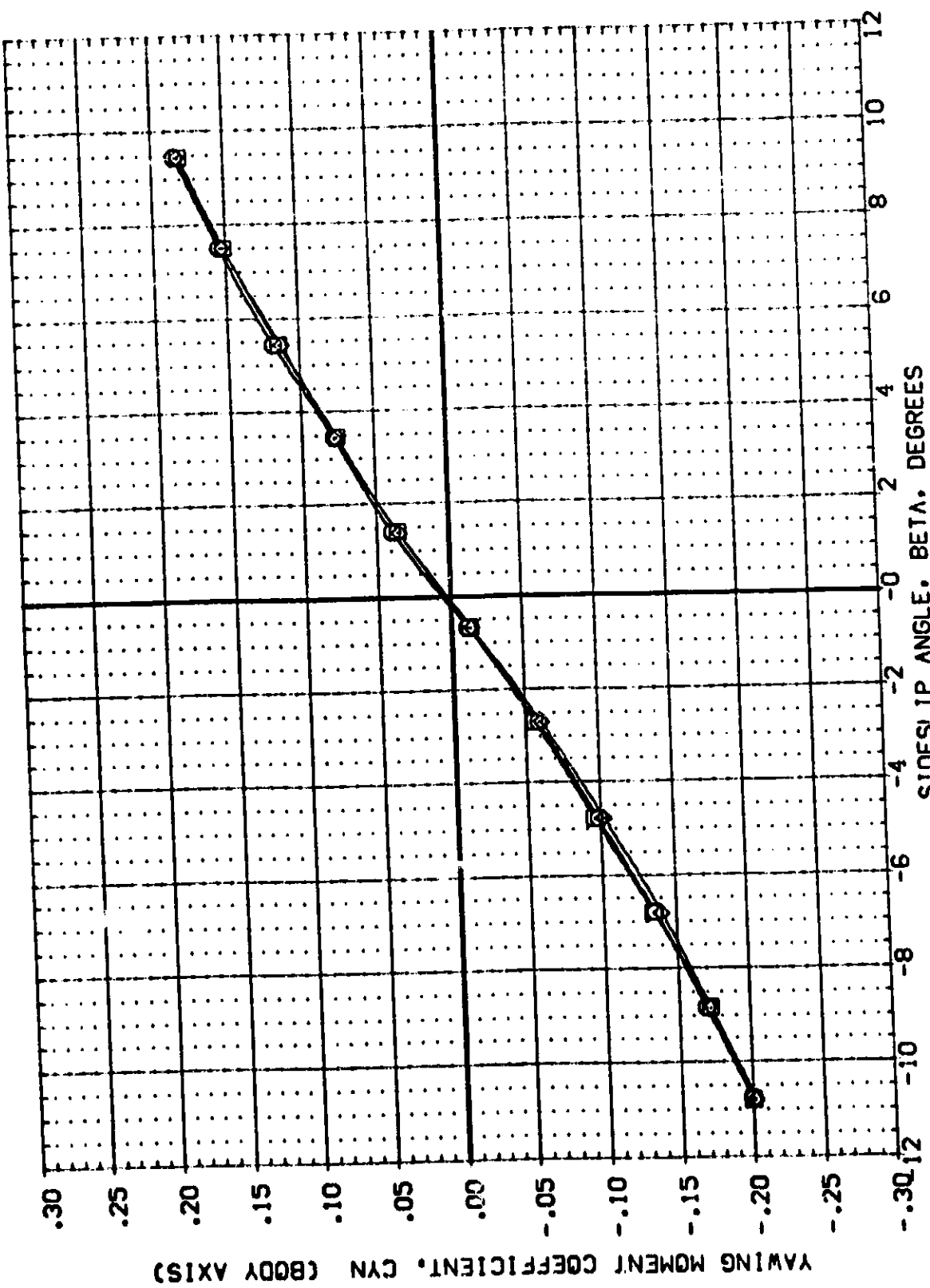
(G)MACH = 4.96

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ. IN.

SRF	.000	.000	6.199
LRF	.000	.000	5.313
BRF	.000	.000	5.313
X-RP	.000	.000	2.549
Y-RP	.000	.000	.000
Z-RP	.000	.000	.000
SCALE			.004

DATA SET SYMBOL CONFIGURATION DESCRIPTION

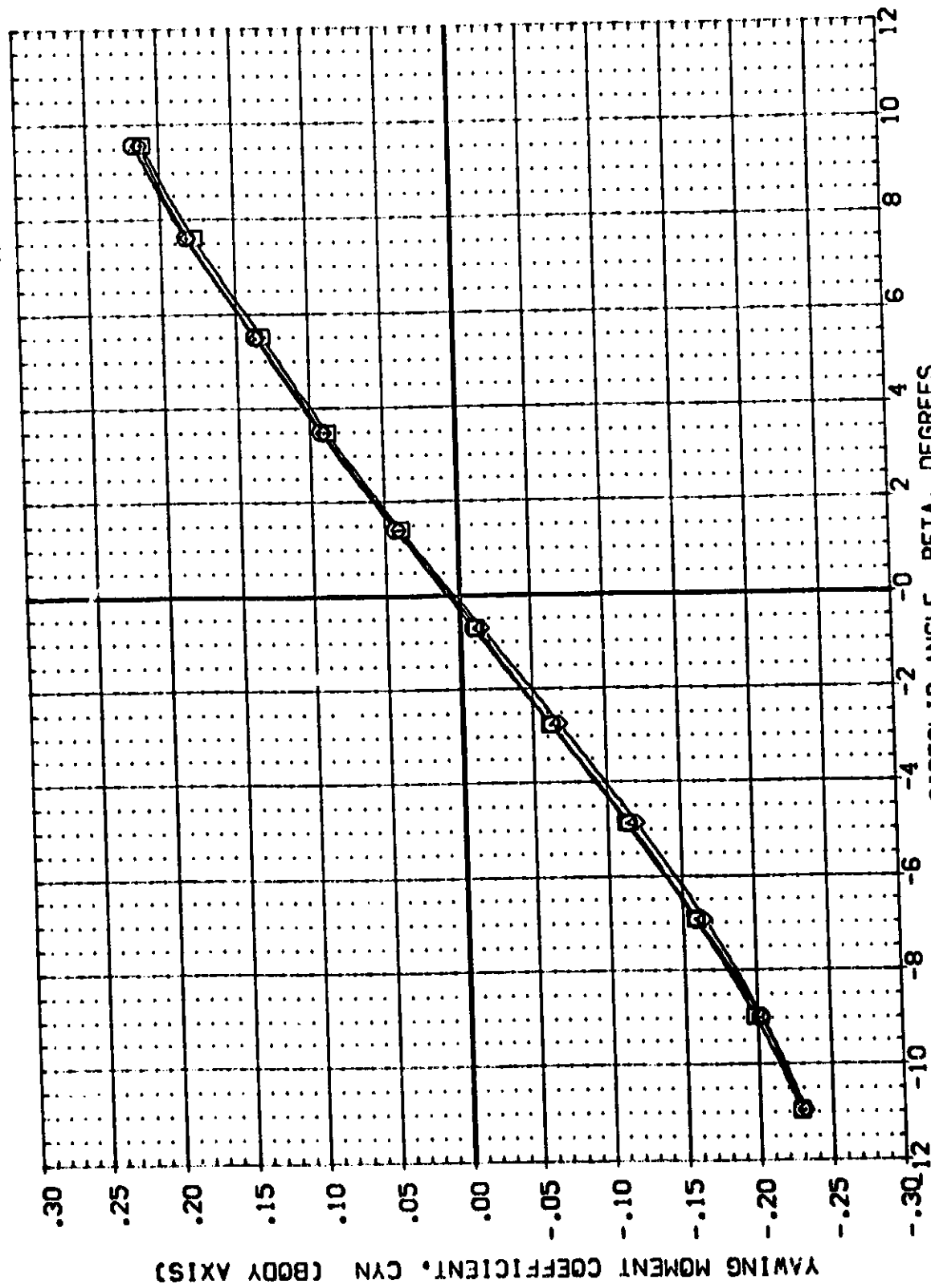
(DB1002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
(DB1004)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
(DB1006)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(MACH = 0.60)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION	SO. IN
(08:002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198	IN.
(08:004)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-.500	.000	.136	.000	LREF 5.313	IN.
(08:006)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313	IN.
						XMRP 2.548	IN.
						YMRP .000	IN.
						ZMRP .000	IN.
						SCALE .004	

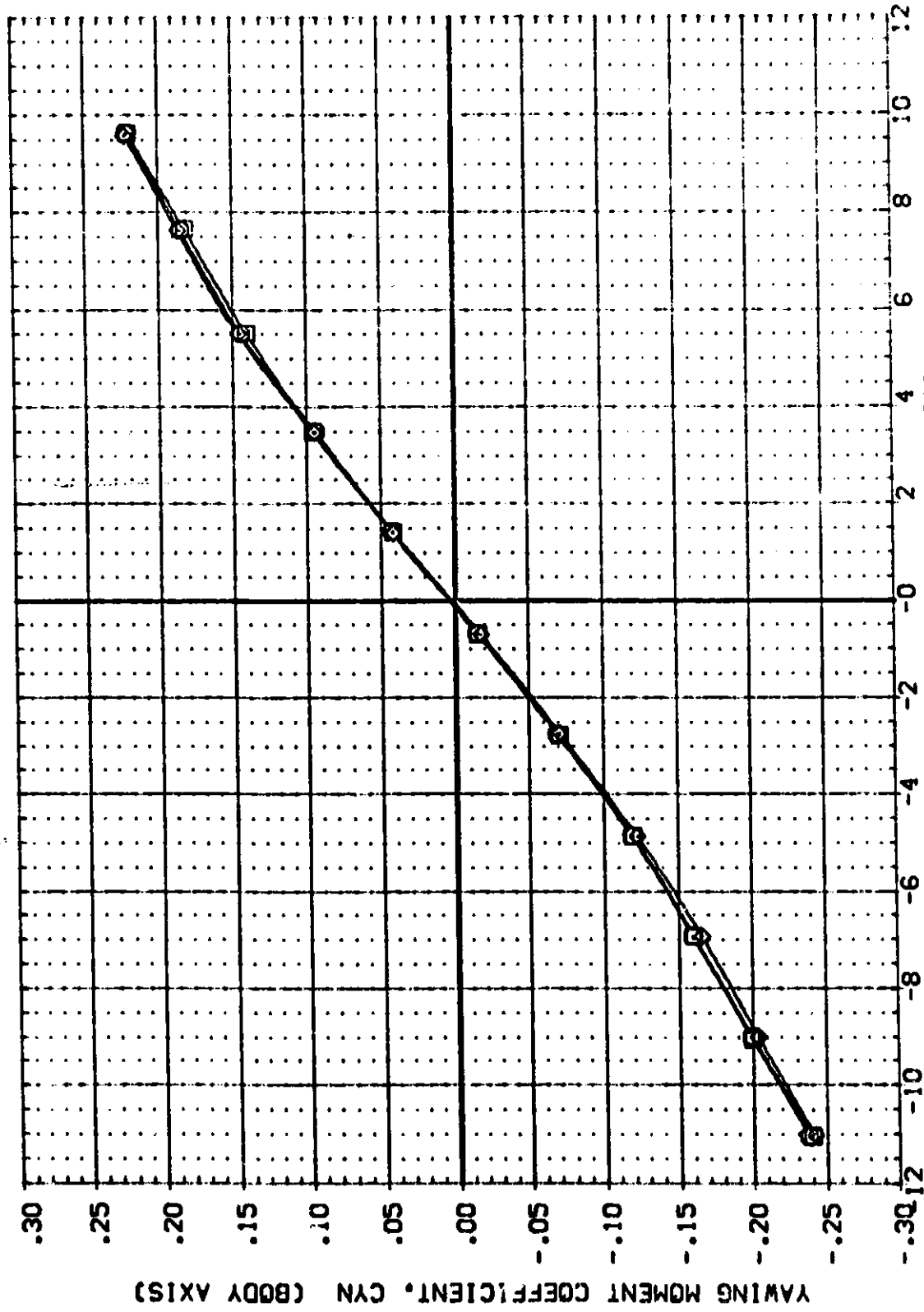


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.90



DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		DELTA Z		RUDDER		REFERENCE INFORMATION	
(DB1002)	Q	MSFC 566	(1A31F) MCR 0074	LV 03	T9 S3	.000	.136	.000	SREF	6.198	SO. IN
(DB1004)	Q	MSFC 566	(1A31F) MCR 0074	LV 03	T9 S3	.000	.136	.000	LREF	5.313	
(DB1006)	Q	MSFC 566	(1A31F) MCR 0074	LV 03	T9 S3	.000	.136	.000	BREF	5.313	
									YMRP	2.549	
									YMRD	.000	
									ZMRP	.000	
									ZMRD	.000	
									SCALE	.004	

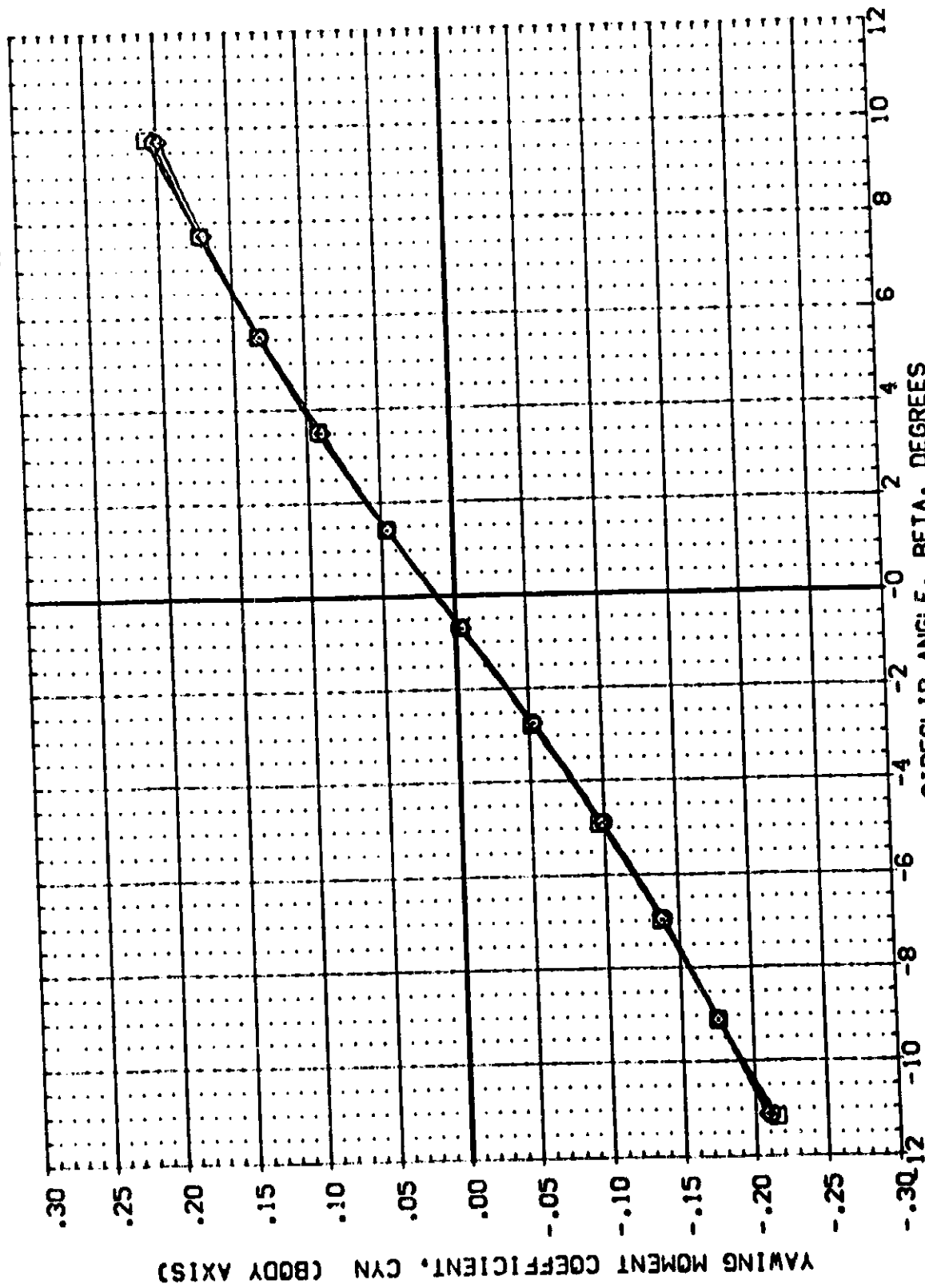


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(COMACH = 1.05

REFERENCE INFORMATION

CONFIGURATION		DESCRIPTION	
MSC	566 (IA31F)	PCR 0074	LV 03 19 03
MSC	566 (IA31F)	PCR 0074	LV 03 19 03
MSC	566 (IA31F)	PCR 0074	LV 03 19 03



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

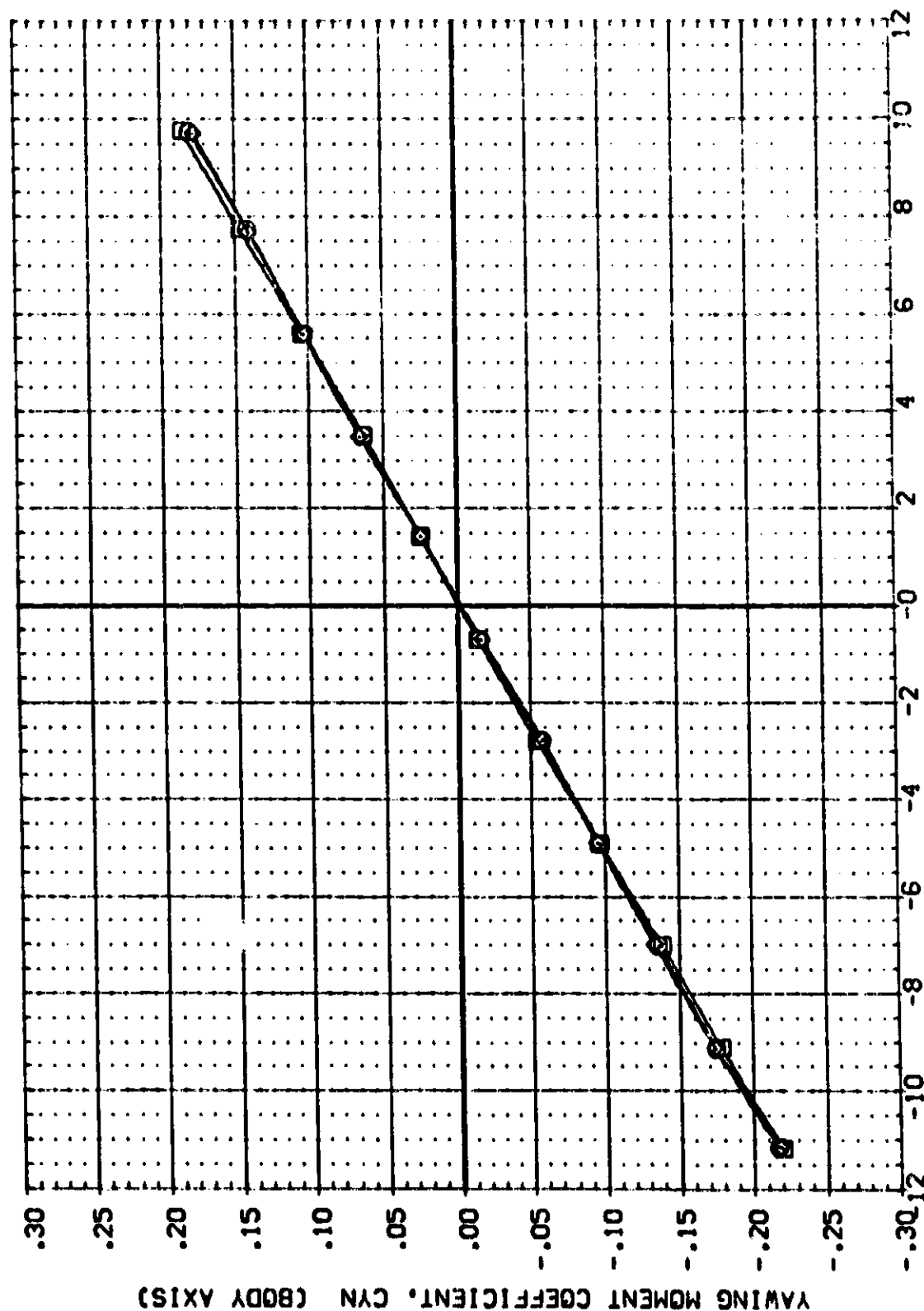
COMACH = 1.25



DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (DB:004) Q MSC 566 (A31F) MCR 0074 LV 03 19 S3
 (DB:005) Q MSC 566 (A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000
 .500 .000
 1.500 .000

REFERENCE INFORMATION
 SREF 6.198
 ZREF 5.313
 YREF 5.313
 YGRP 2.548
 ZGRP .000
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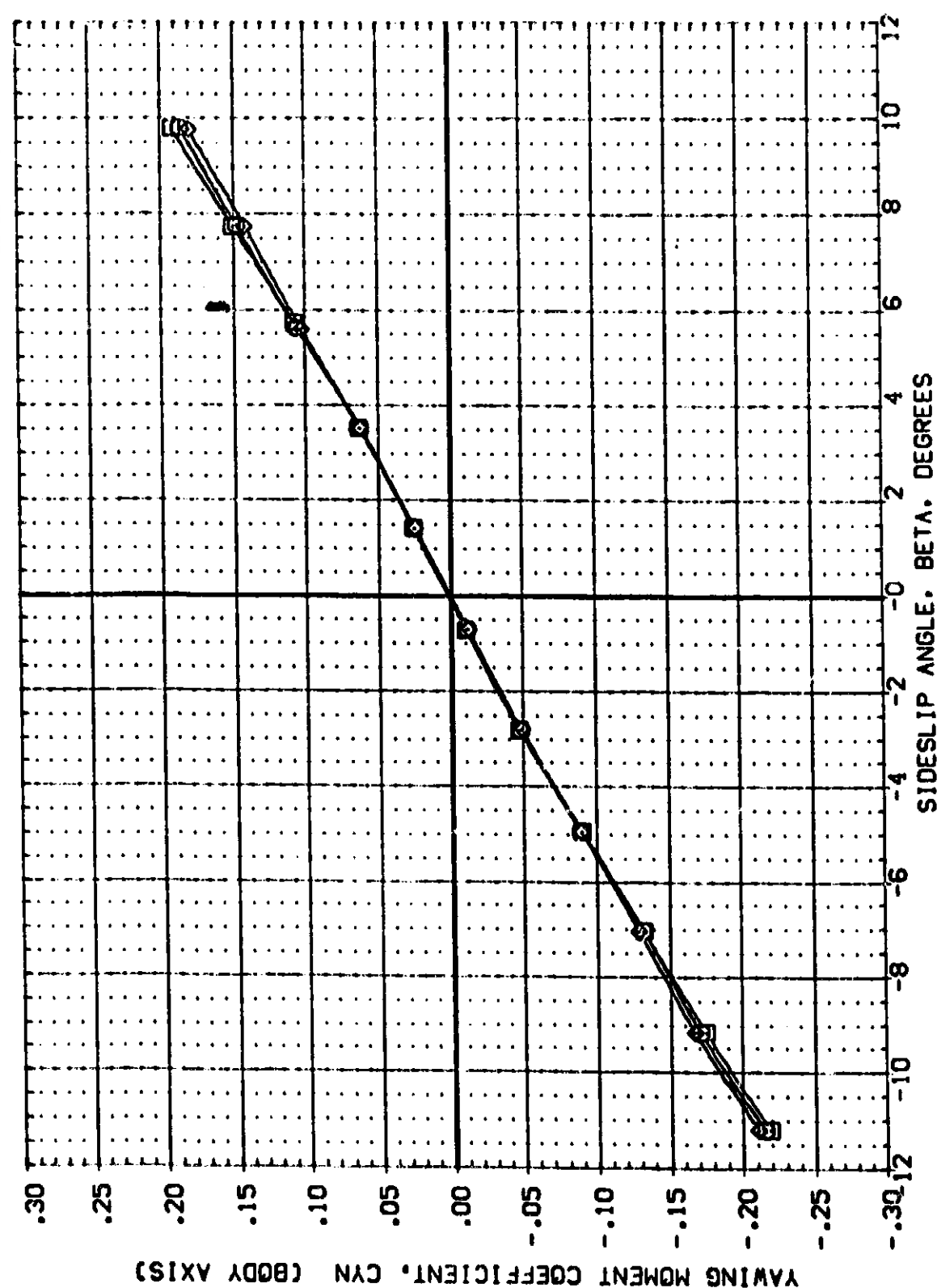
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081002) MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 (281004) MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 (281006) MSC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBIT INC X-S49 DELTA Z RUDDER
 .500 .000 .000
 .500 .000 .000
 1.500 .000 .000

REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 XREF 5.213
 YREF 2.549
 ZREF 1.000
 SCALE 1.004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

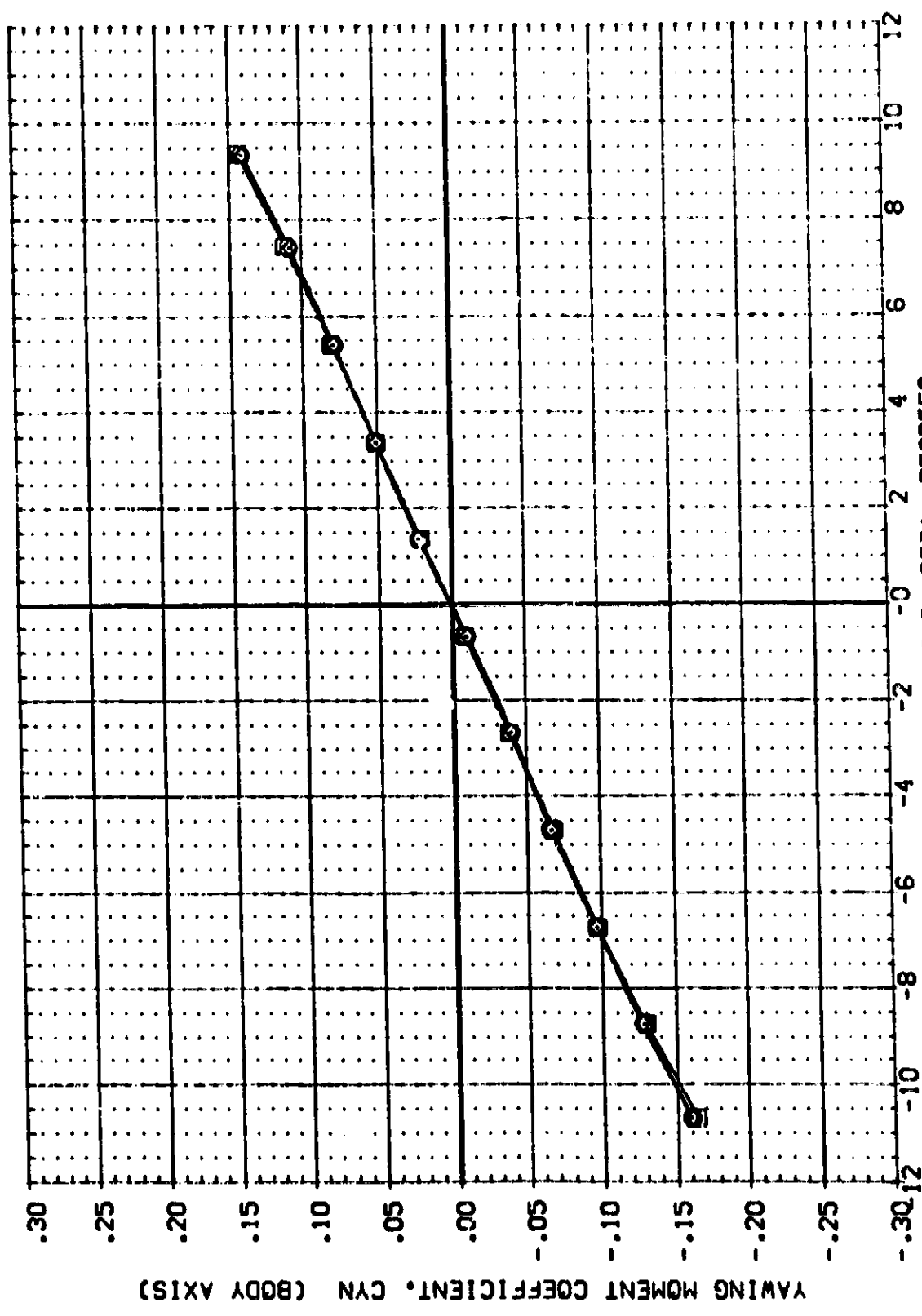
(F)MACH = 1.96



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (08:002) MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 (08:004) MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 (08:006) MSC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SYS DELTA Z RUDDER
 .500 .000 .000
 .500 .000 .000
 1.500 .000 .000

REFERENCE INFORMATION
 SIZE 6.198
 LREF 5.313
 BREF 5.313
 XREF 2.549
 YREF .000
 ZREF .000
 SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(S)MACH = 4.96

CONJUGATION DESCRIPTION

SECRET

DELTA 2

X-599

Index

10310

10

4



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

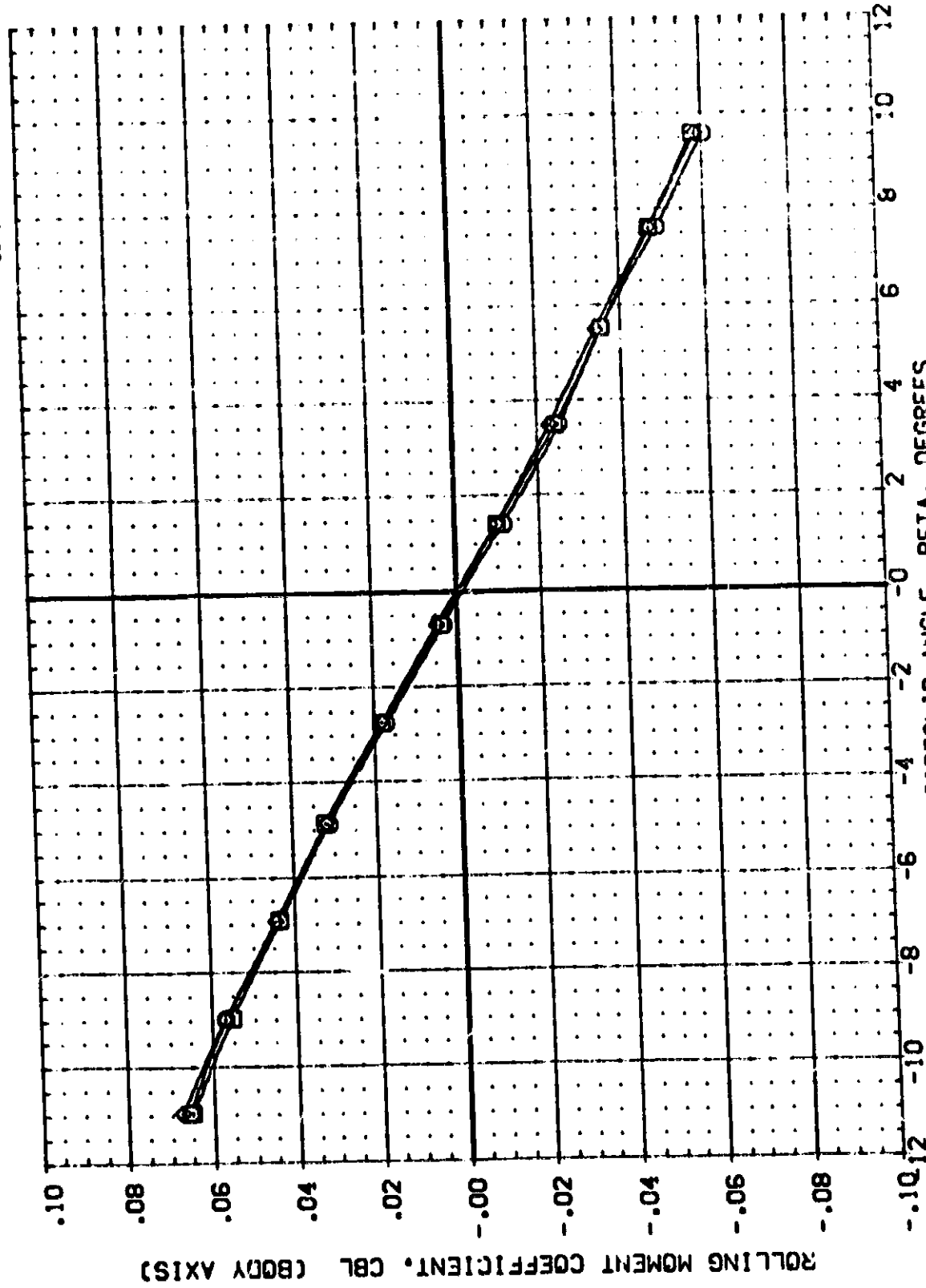
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DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081002) MFC 566 (A31F) MCR 0074 LV 03 19 S3
 (081004) MFC 566 (A31F) MCR 0074 LV 03 19 S3
 (081006) MFC 566 (A31F) MCR 0074 LV 03 19 S3

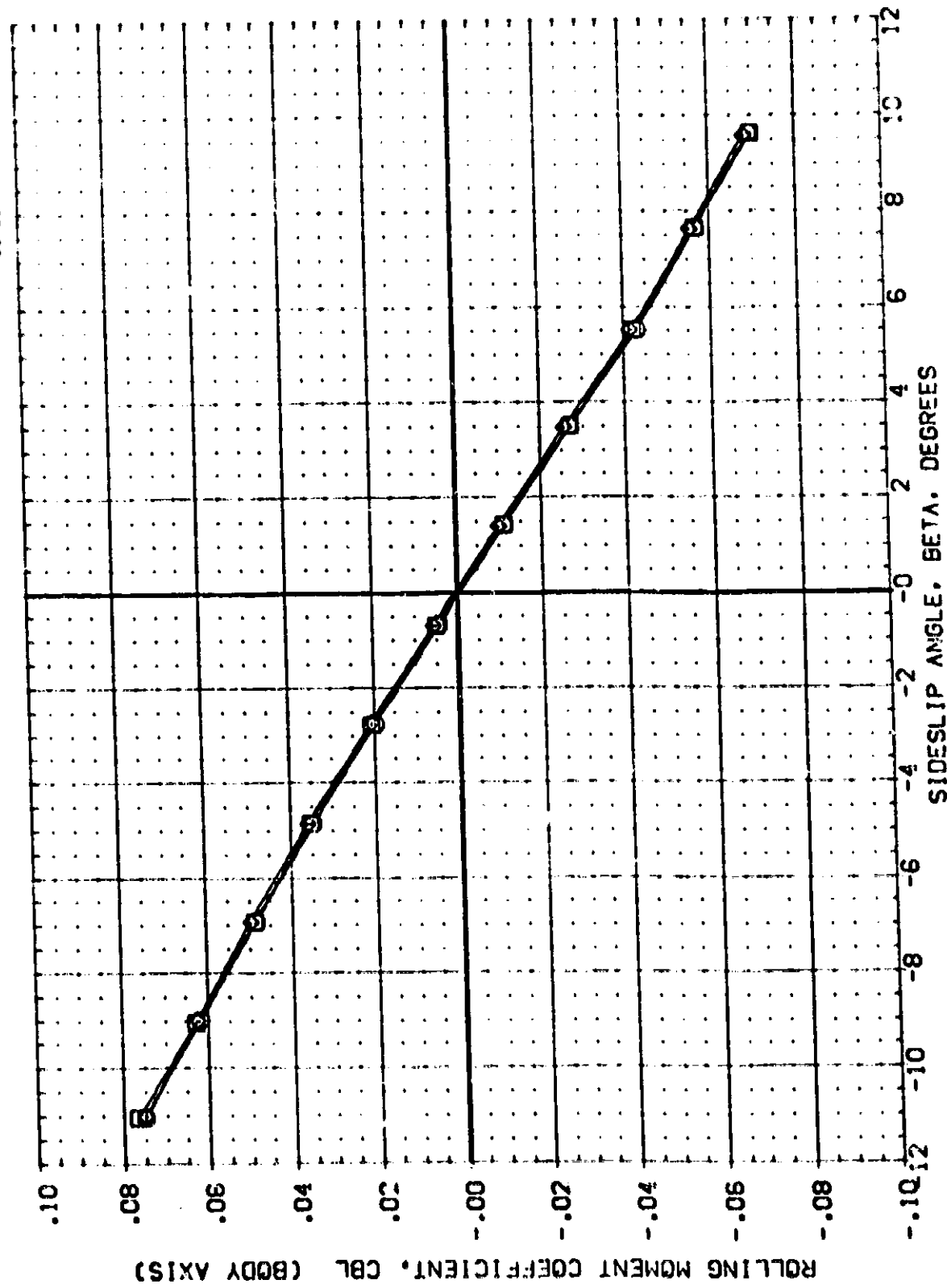
ORBITAL X-509 DELTA Z ROLLER
 .500 .000 .000
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SPEC 6.198 SD. IN
 SPEC 5.313
 SPEC 5.313
 SPEC 2.543
 X-509 .000
 X-509 .000
 X-509 .000
 SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

[illegible]

EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

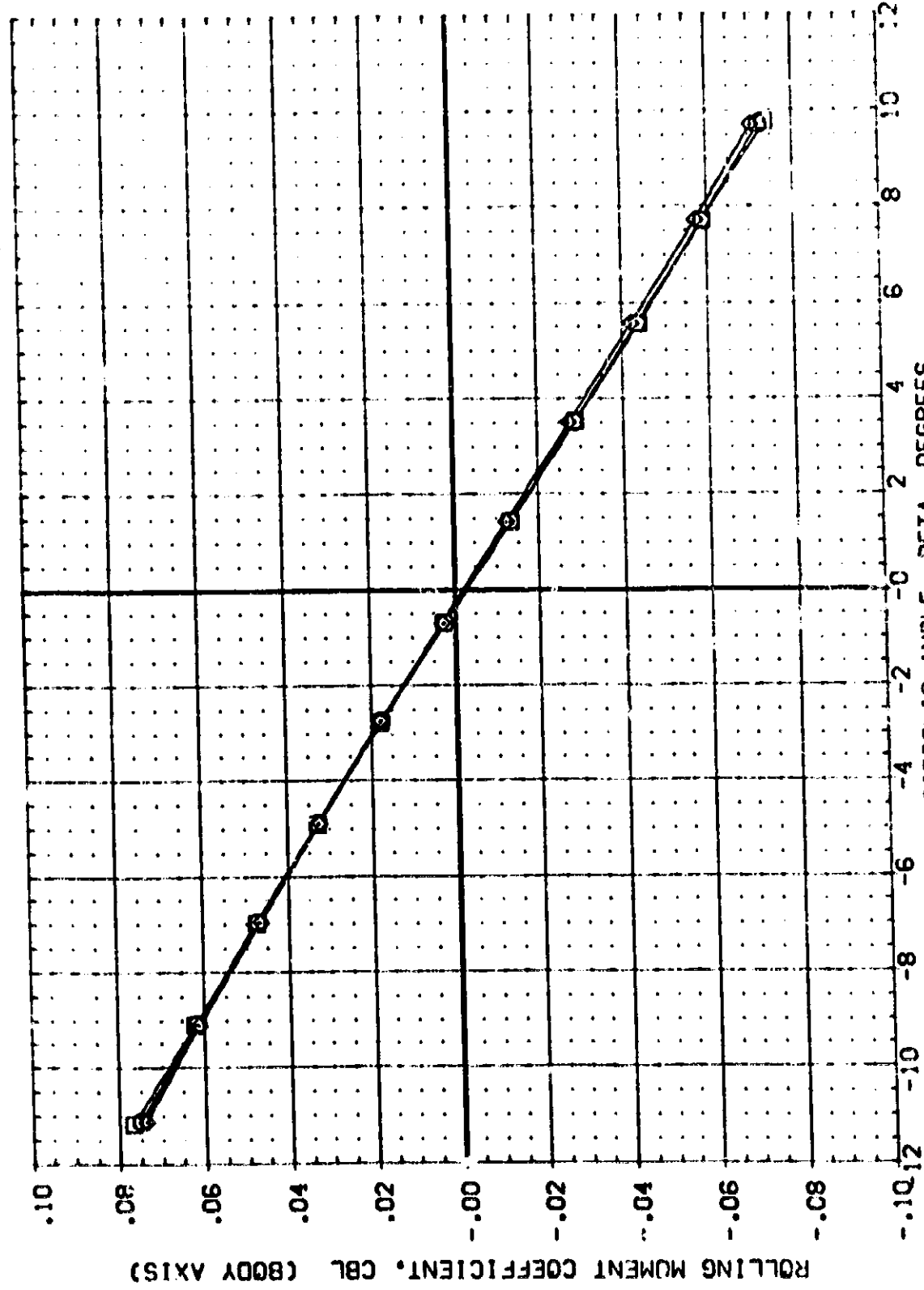
COACH = 05



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 281002) Q MFC 566 (1A31F) MCR 0074 LV 03 19 S3
 281004) K MFC 566 (1A31F) MCR 0074 LV 03 19 S3
 281006) K MFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL K-998 DELTA Z RUDDER
 .000 .000
 .000 .000
 .000 .000
 .000 .000

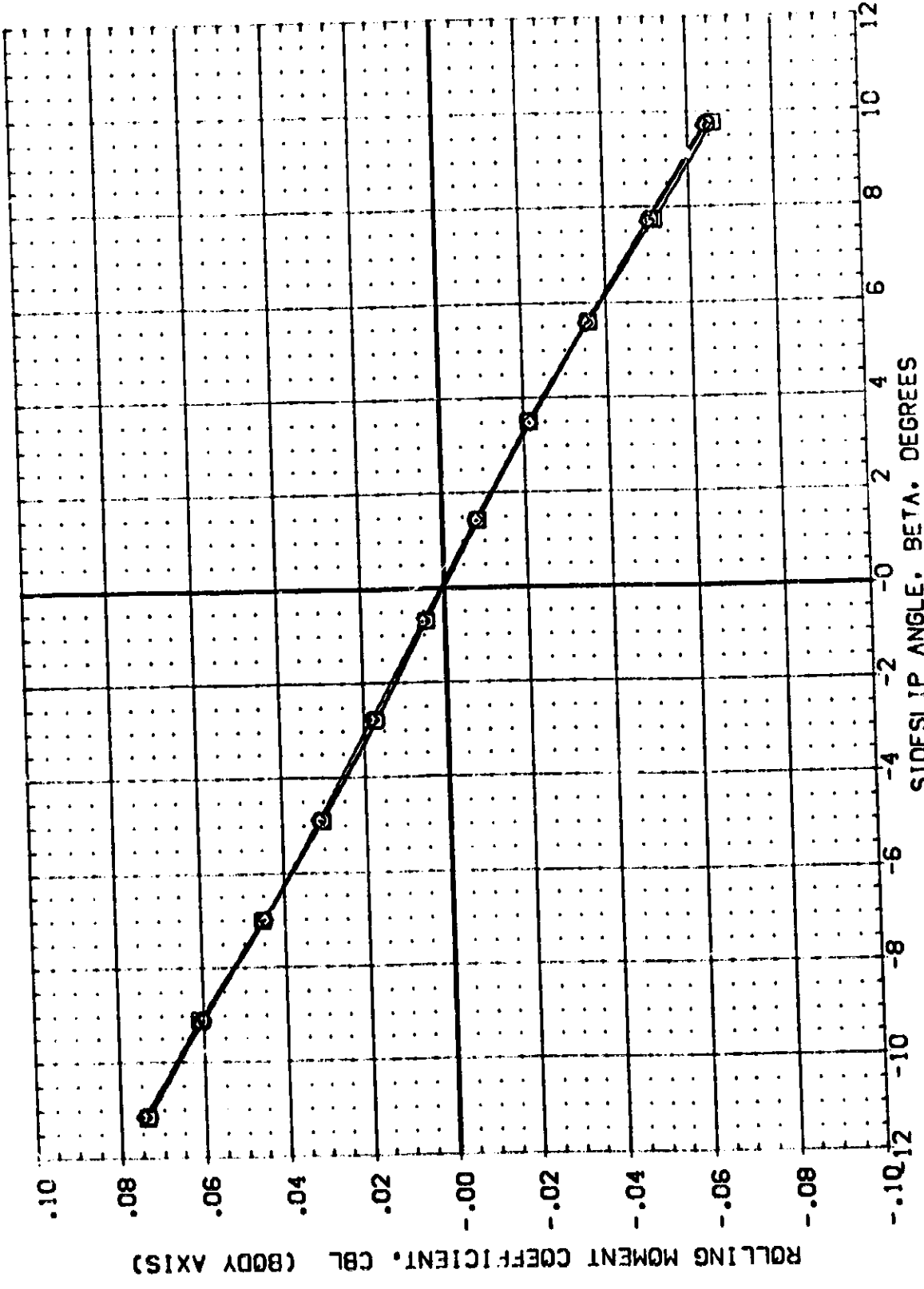
REFERENCE INFORMATION
 SFC 5.198 SC:
 REF 5.313
 EXPF 5.313
 APP 5.313
 APP 5.313
 APP 5.313
 SCALE



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

CDMACH = 1.25

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
080021	MSFC 528 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
080024	MSFC 528 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
080026	MSFC 528 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.548
						YREF .000
						ZREF .000
						SCALE .004

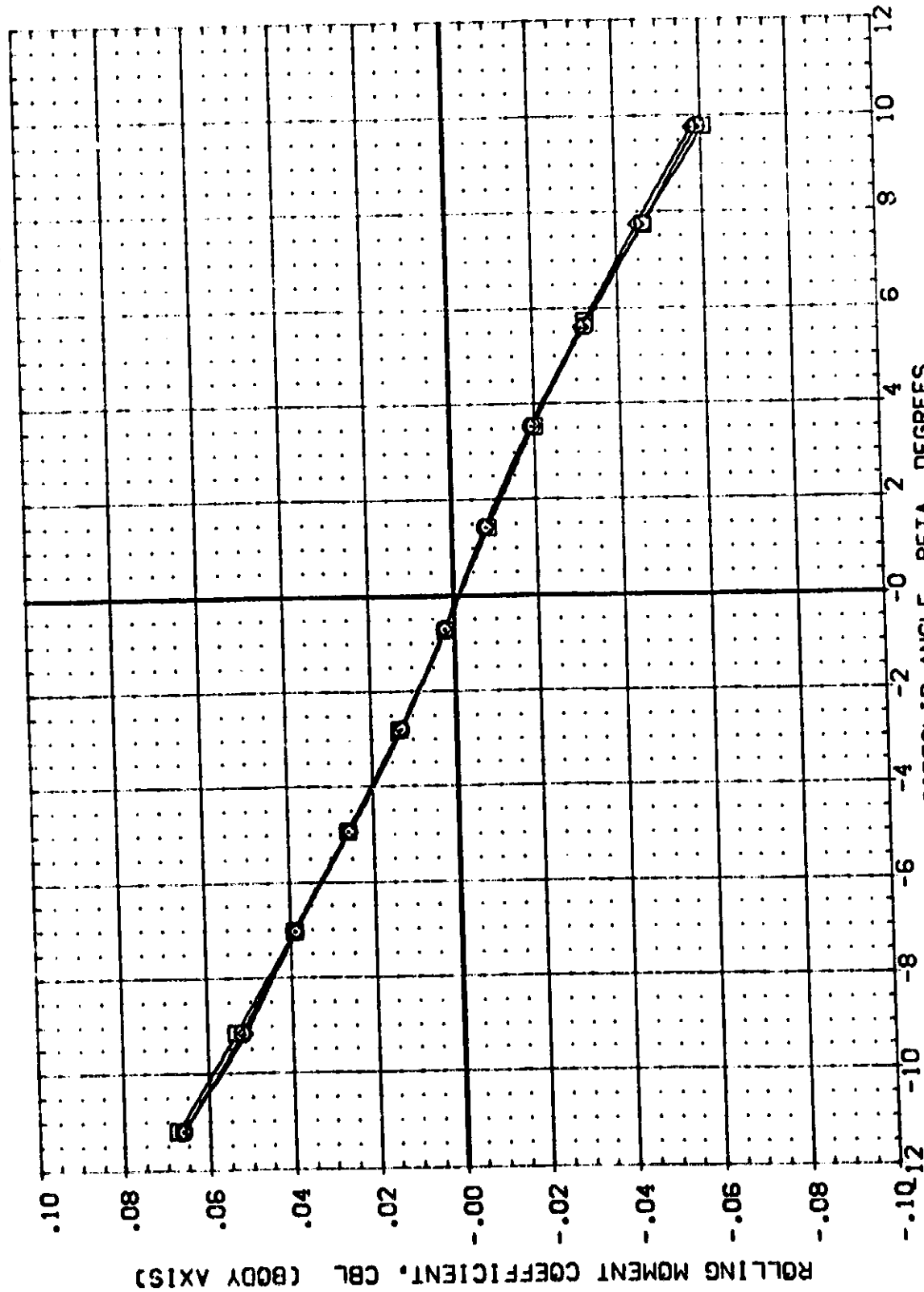


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

($C_{DMACH} = 1.46$)



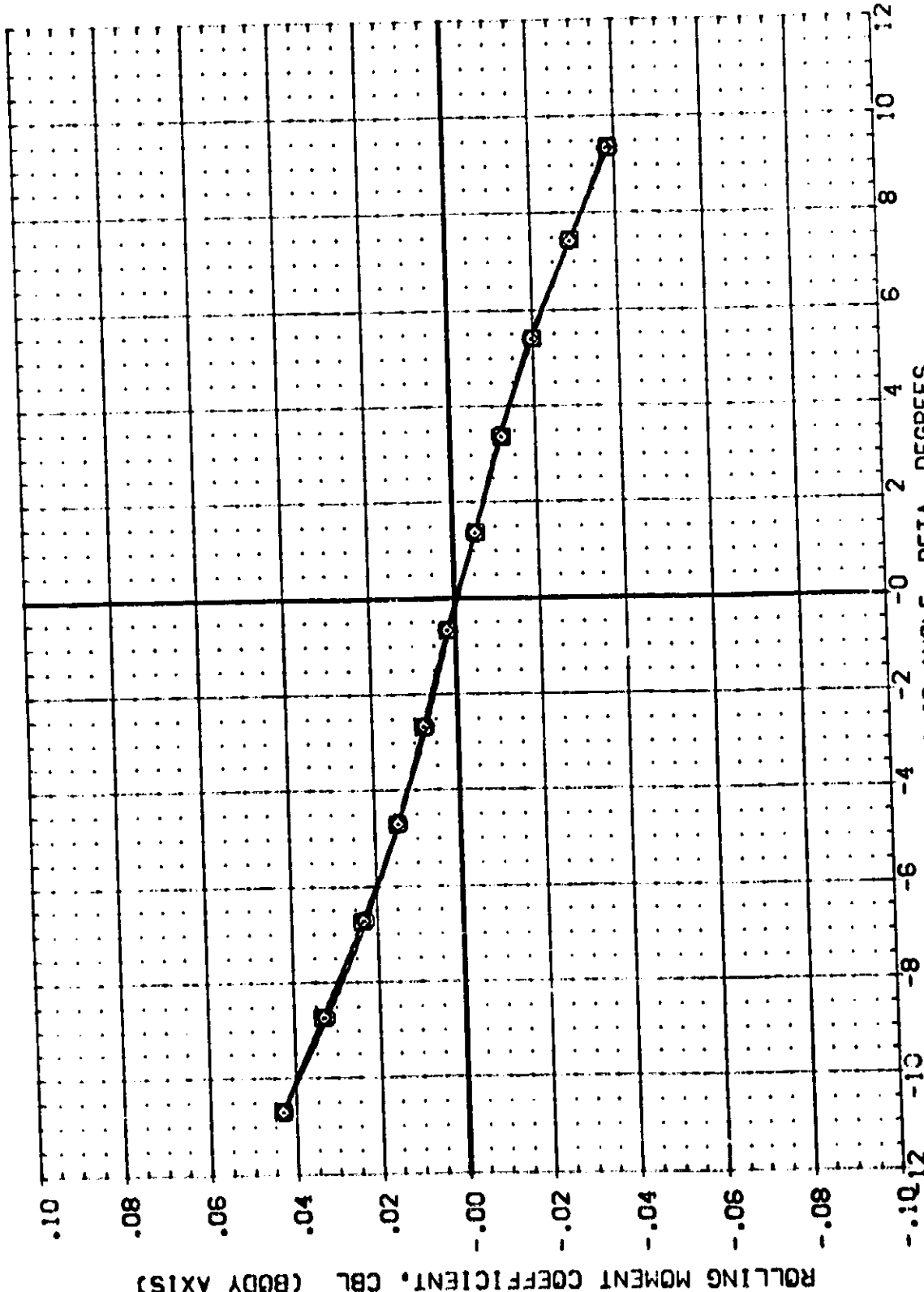
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(8) 002	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SRF 6.198
(8) 004	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SRF 5.313
(8) 006	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	1.500	.000	.136	.000	SRF 5.313
						XSRB 2.549
						YSRB .000
						ZSRB .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
DB1021	WFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 5.198
DB1024	WFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	LREF 3.313
DB1026	WFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 3.313
						XREF 2.548
						YREF .000
						ZREF .000
						SCALE .001



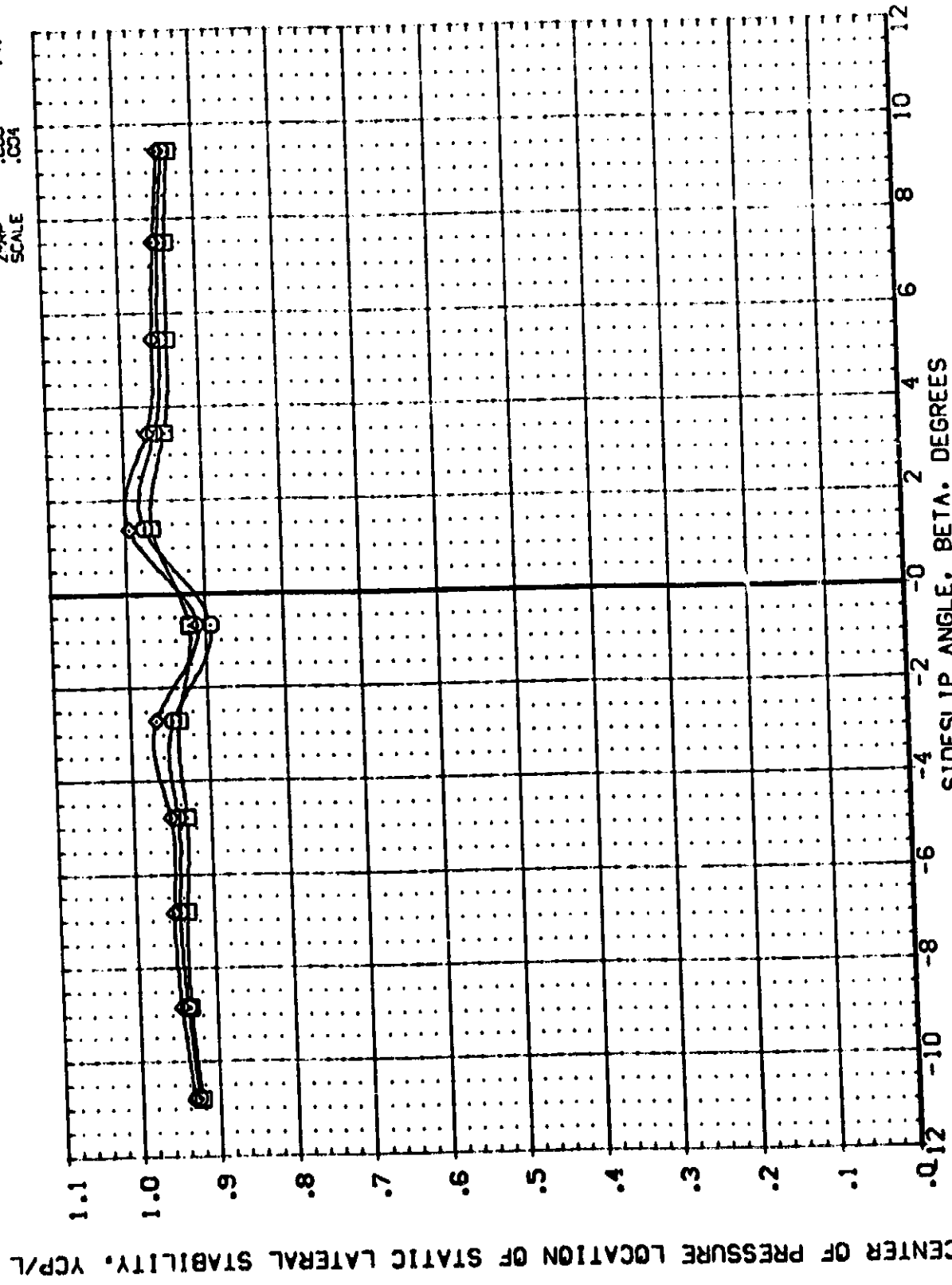
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(G)MACH = 4.96



DATA SET SYMBOL CONFIGURATION DESCRIPTION ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

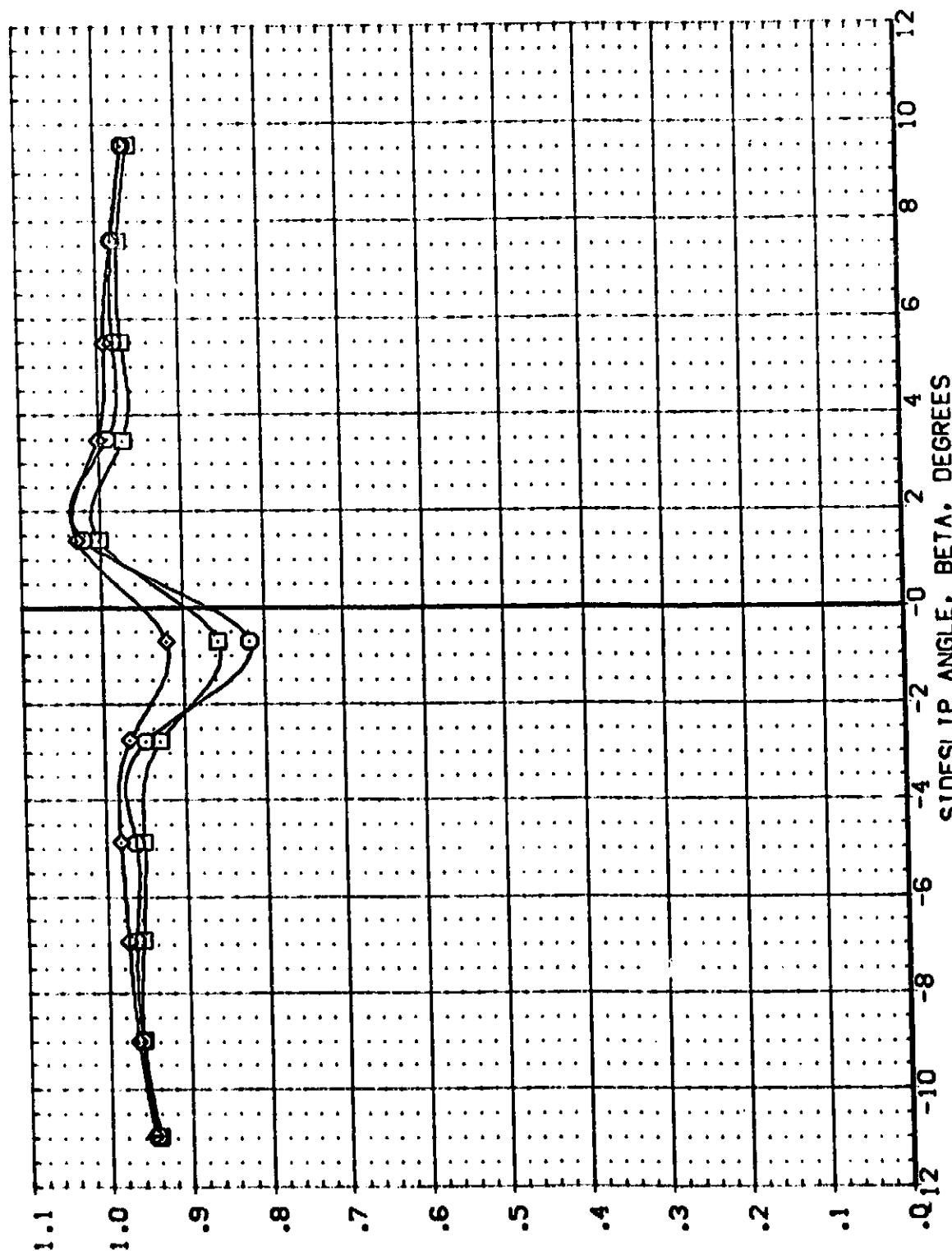
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081004)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-1.500	.000	.136	.000	LREF 5.313
(081006)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

CENTER OF PRESSURE LOCATION OF STATIC LATERAL STABILITY, YCP/L

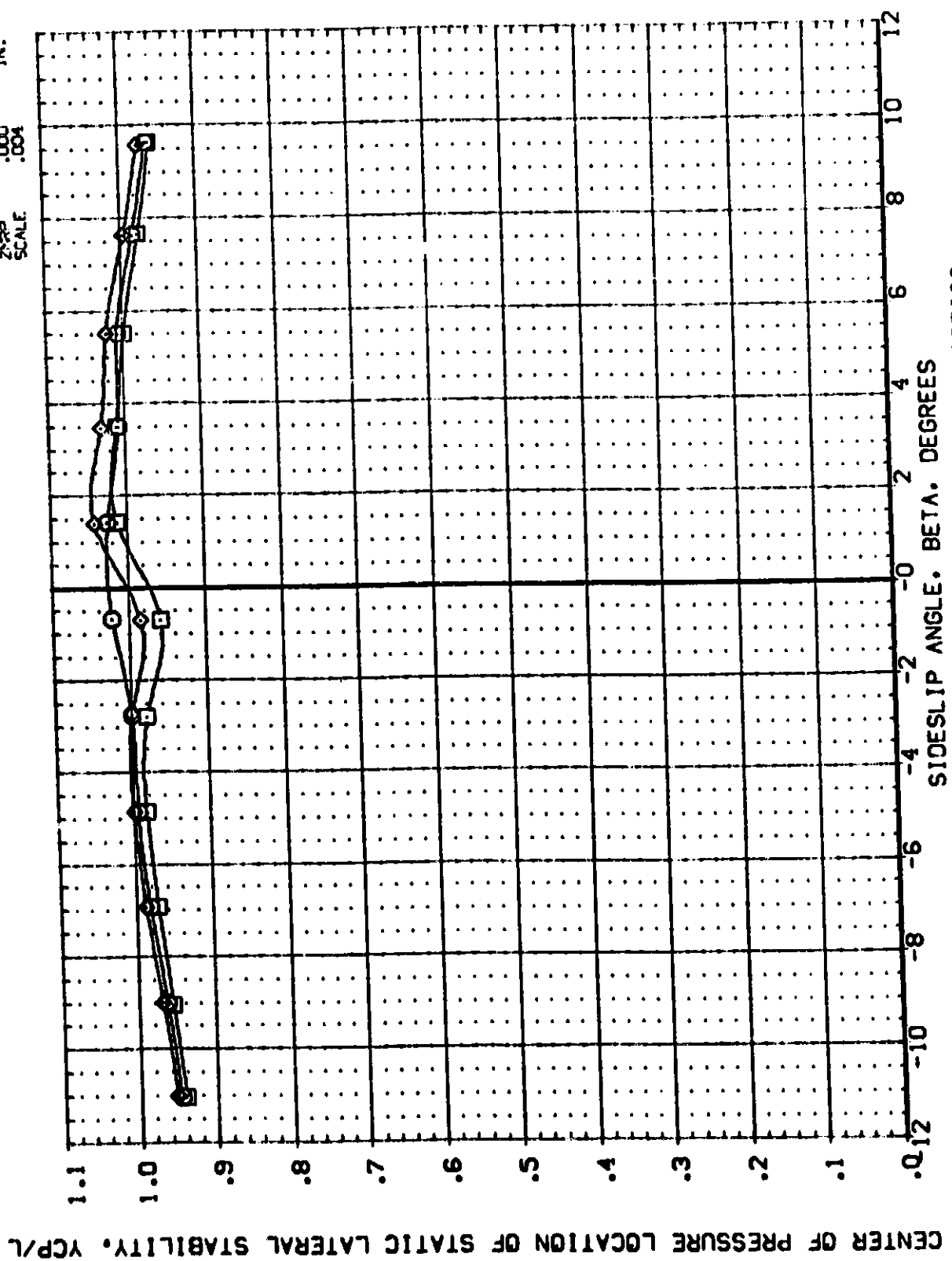


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

0.00 = HCN(E)



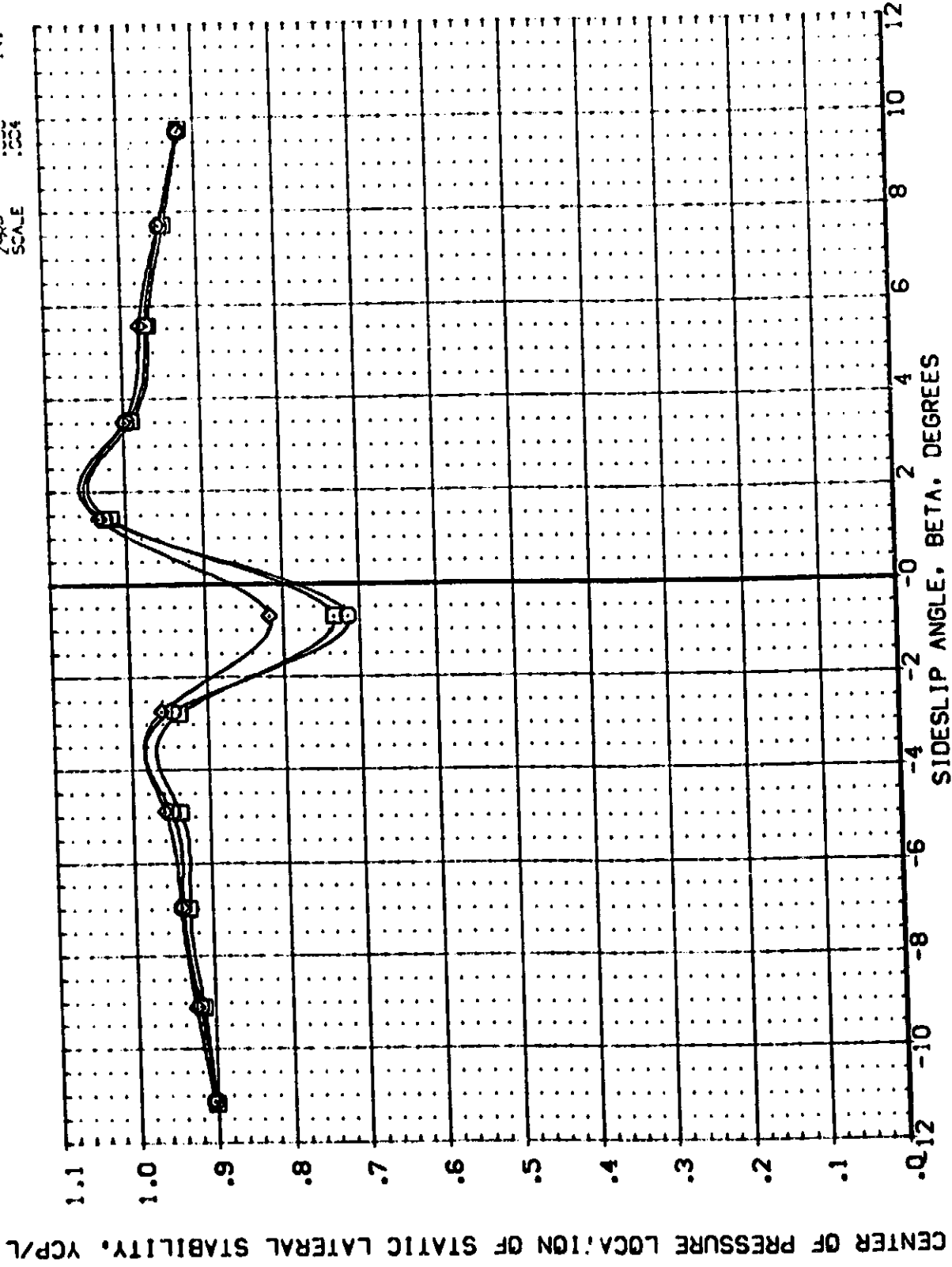
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB1002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(DB1004)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-1.500	.000	.136	.000	LREF 5.313
(DB1006)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313
						X-REF 2.549
						Y-REF .000
						Z-REF .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

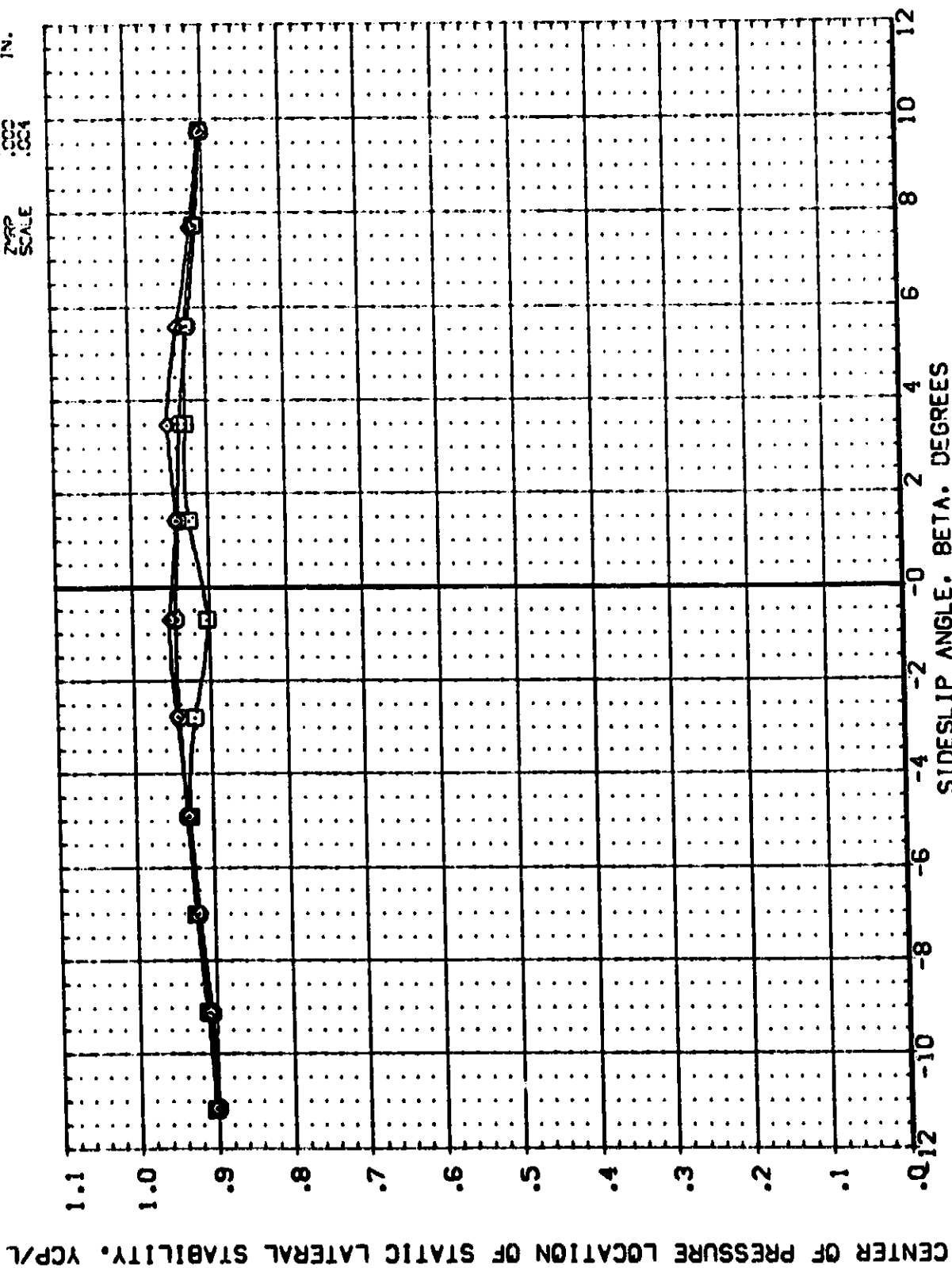
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SPB	DELTA Z	RUDDER	REFERENCE INFORMATION
[001:002]	MS-C 566 [A3:F] MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 5.198
[001:003]	MS-C 566 [A3:F] MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
[001:004]	MS-C 566 [A3:F] MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	BREF 5.313
[001:005]	MS-C 566 [A3:F] MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	XMRP 2.548
[001:006]	MS-C 566 [A3:F] MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(0)MACH = 1.25

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081004)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
(081006)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XMRP 2.548
						YMRP .000
						ZMRP .000
						SCALE .004

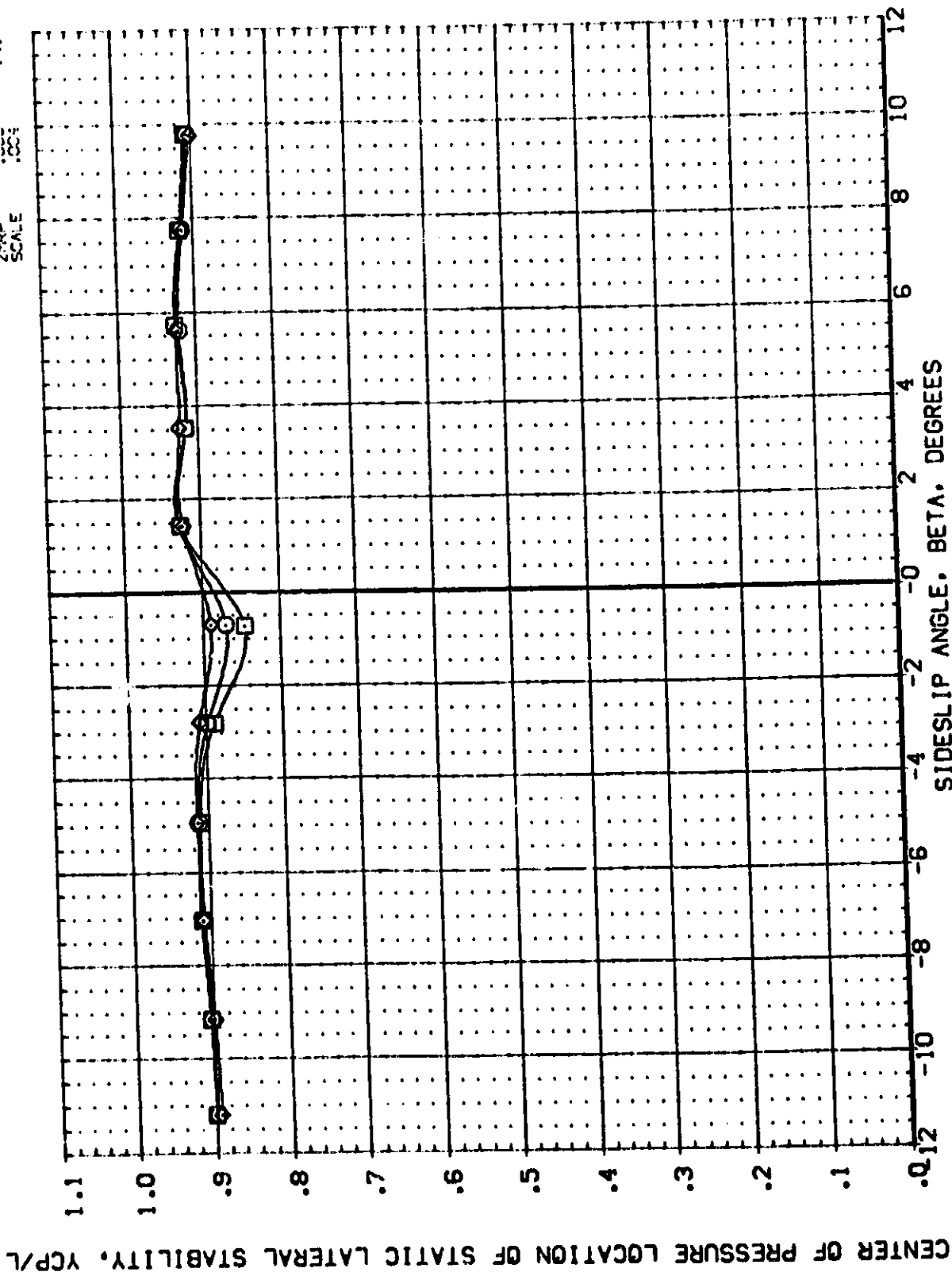


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT INC	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION	SG IN
(281002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 5.198	2.2222
(281004)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	-1.500	.000	.136	.000	LREF 5.313	2.2222
(281006)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	BREF 5.313	2.2222
						XMRP 2.549	
						YMRP .000	
						ZMRP .000	
						SCALE .001	

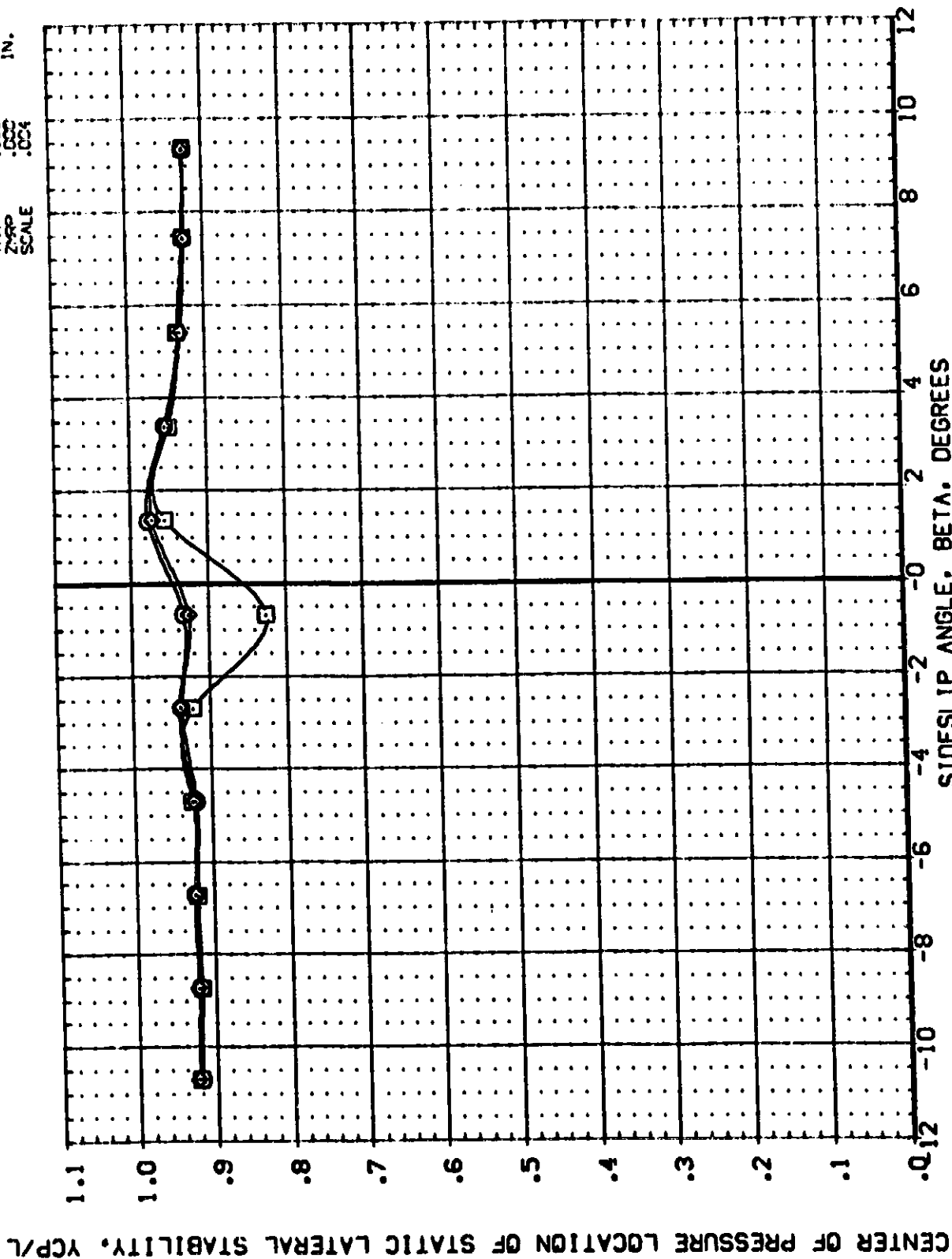


EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(F)MACH = 1.96



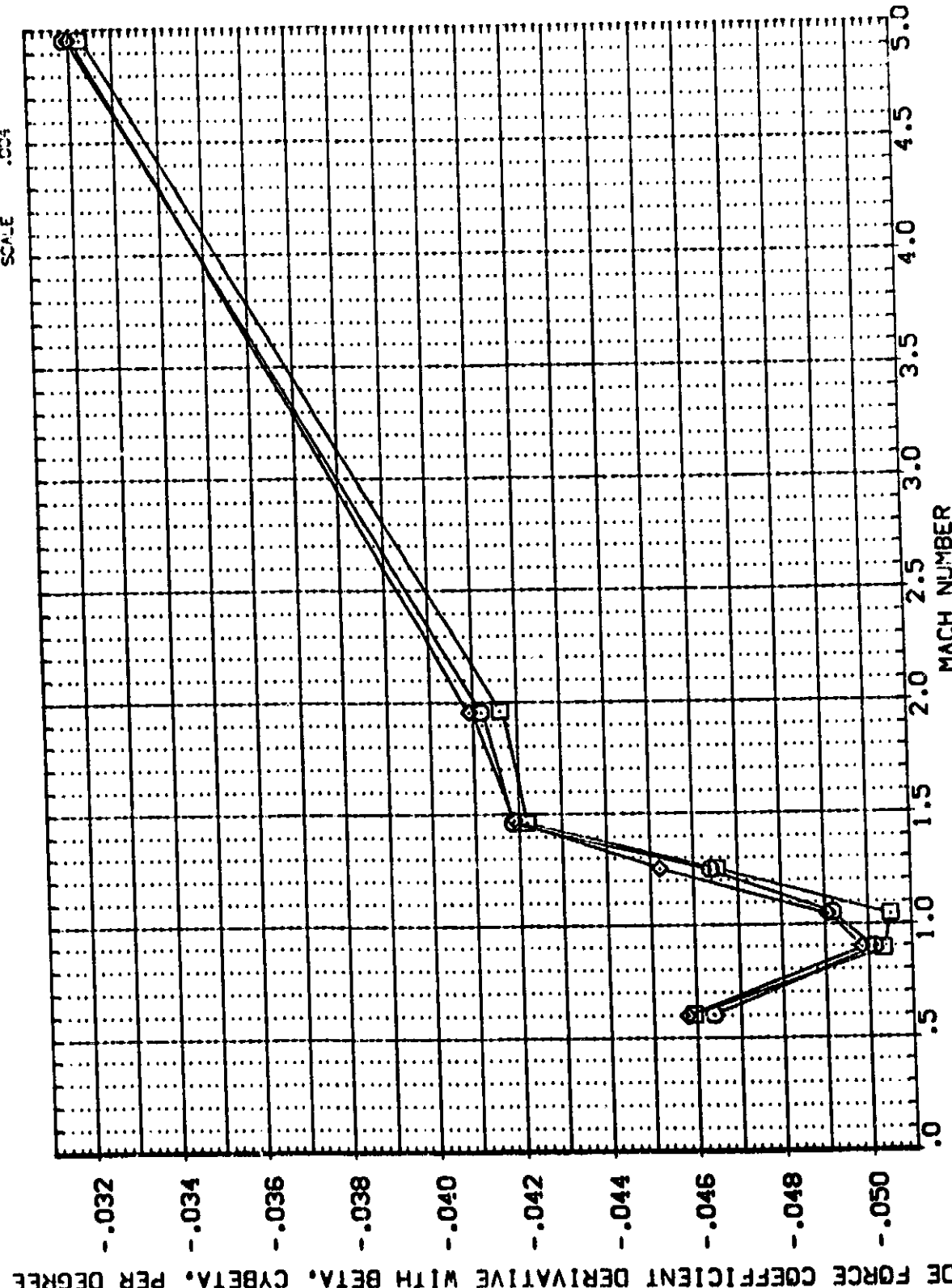
DATA SET SYMBL.	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081002)	MFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081004)	MFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF 5.313
(081006)	MFC 566 (1A31F) MCR 0074 LV 03 19 S3	1.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION		
0001	MSC 566 [IA3:F]	PCR 0074 LV	03	19 03
0002	MSC 566 [IA3:F]	PCR 0074 LV	03	19 03
0003	MSC 566 [IA3:F]	PCR 0074 LV	03	19 03
0004	MSC 566 [IA3:F]	PCR 0074 LV	03	19 03
0005	MSC 566 [IA3:F]	PCR 0074 LV	03	19 03



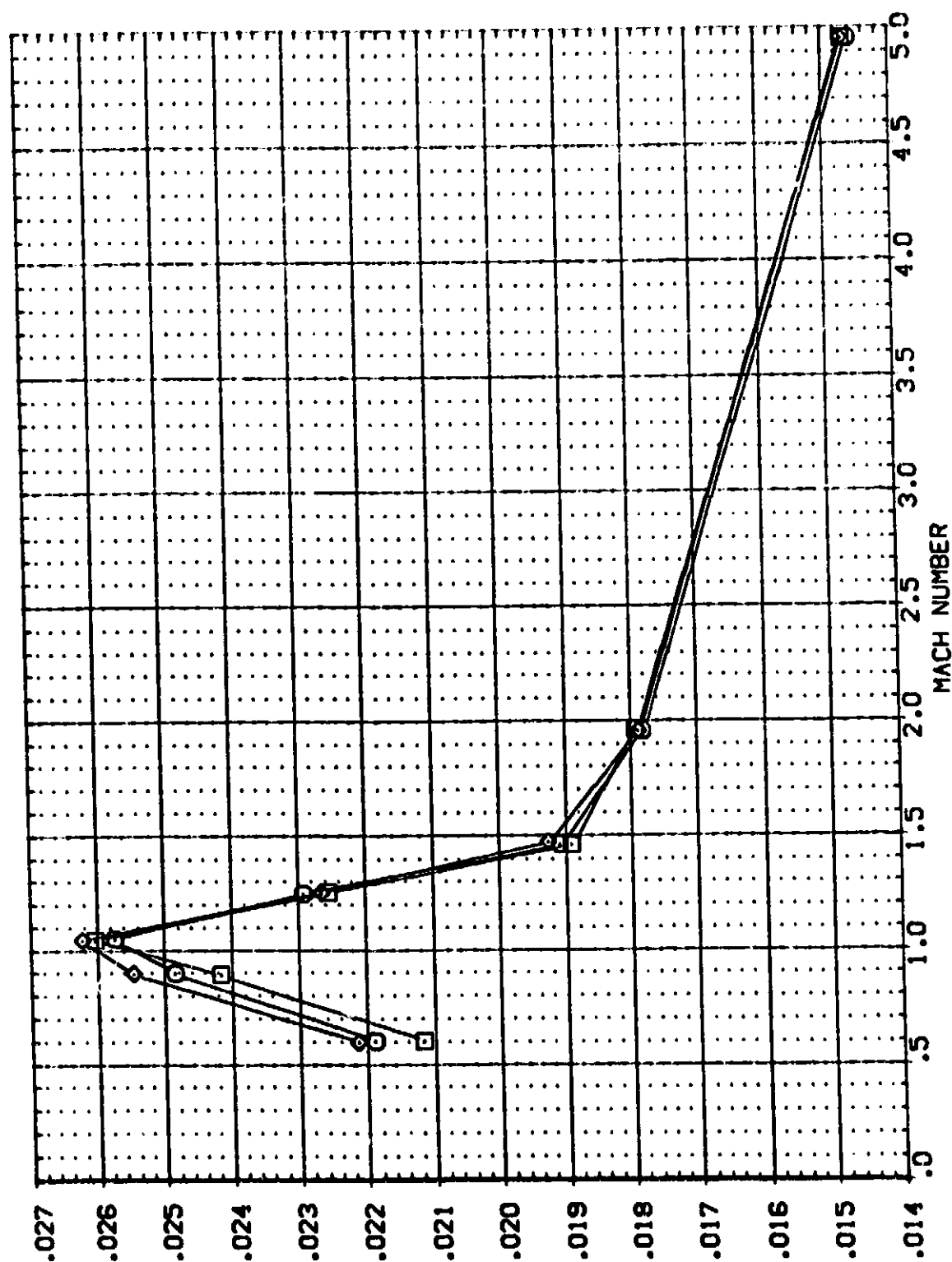
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

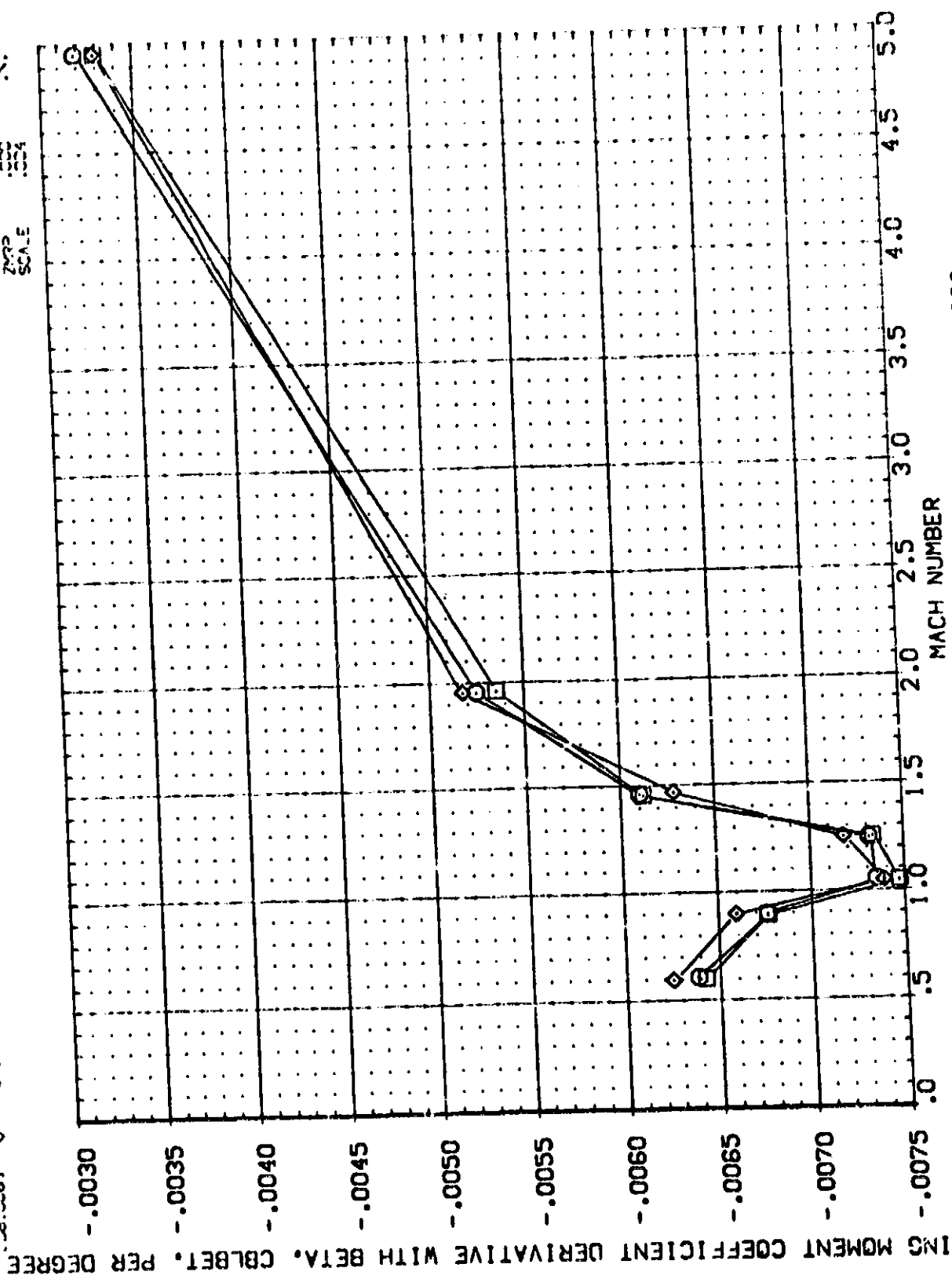
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION
(DB102)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(DB103)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(DB104)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	BREF 5.313
(DB105)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	XREF 2.518
(DB106)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	YREF .000
(DB107)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	ZREF .000
(DB108)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	1.500	.000	.136	.000	SCALE .004

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE



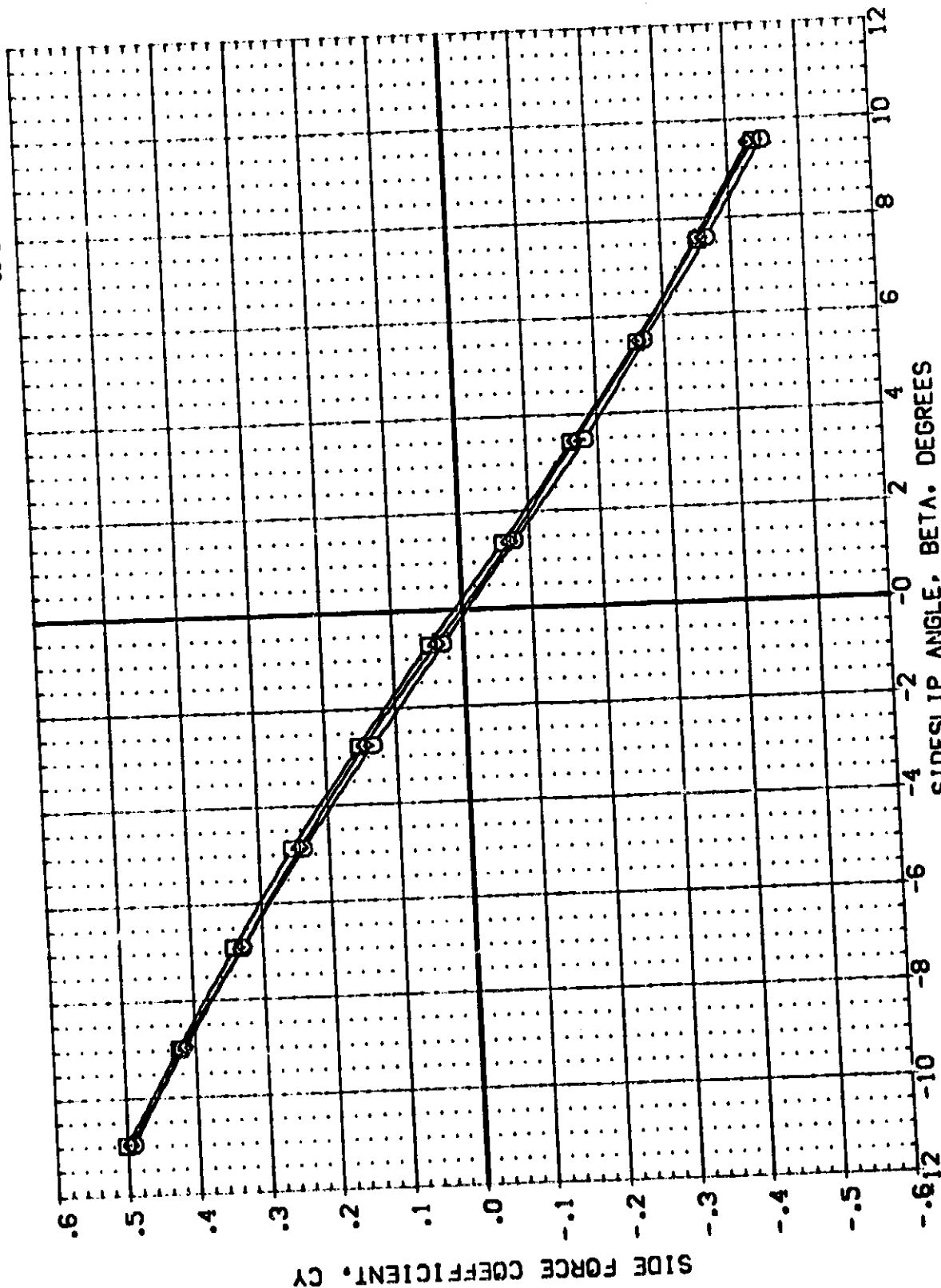
EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
MSFC 566 (1A31F)	MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF 1.89
MSFC 566 (1A31F)	MCR 0074 LV 03 19 53	-.500	.000	.136	.000	REF 2.33
MSFC 566 (1A31F)	MCR 0074 LV 03 19 53	1.500	.000	.136	.000	BREF 2.33
MSFC 566 (1A31F)	MCR 0074 LV 03 19 53					XREF 2.33
						YREF 2.33
						ZREF 2.33
						SCALE 1.00



EFFECT OF ORBITER INCIDENCE ANGLE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SPB	DELTA Z	ALPHA	REFERENCE INFORMATION
(28:082)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(28:087)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(28:088)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF 5.313
						XREF .000
						YREF .000
						ZREF .000
						SCALE .001

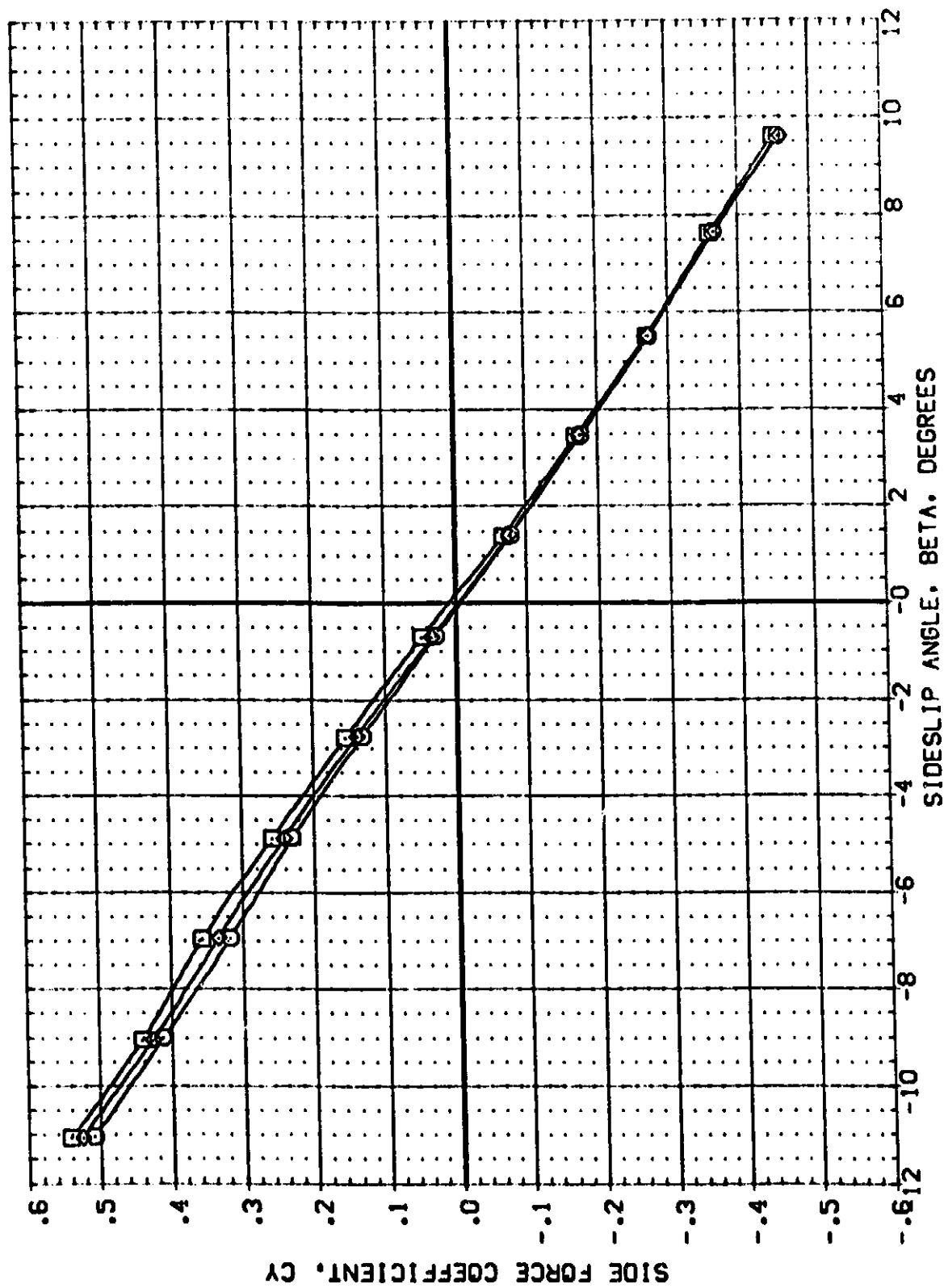


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(MACH = 0.90)



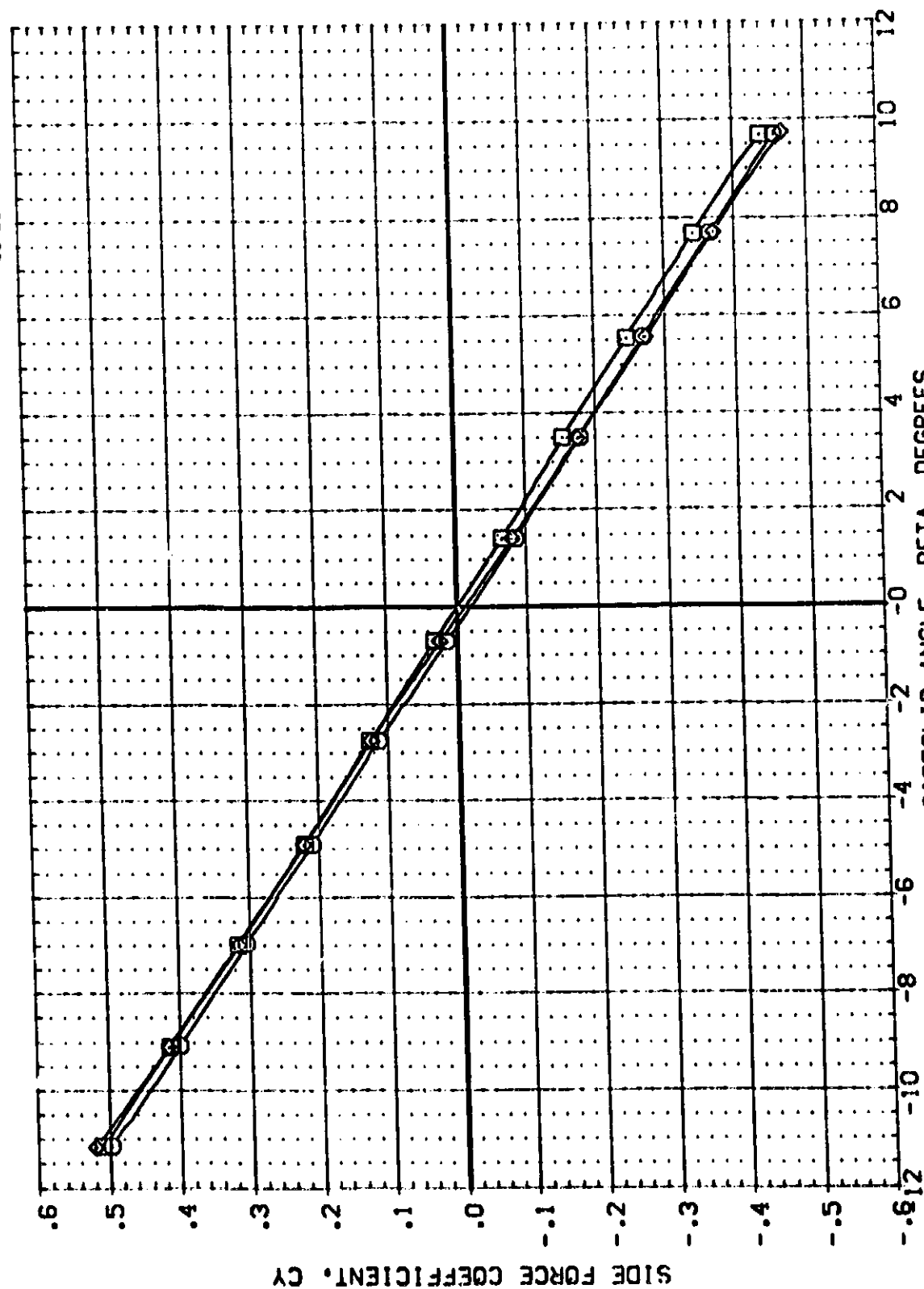
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION	SCALE
(08) (082)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198	SQ. IN
(08) (087)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	5.000	LREF 5.313	
(08) (088)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF 5.313	
						YMRP 2.549	
						ZMRP .000	
						SCALE .004	



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(B) MACH = 1.05

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-S99	DELTA Z	ALPHA	REFERENCE INFORMATION
(38:092)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.199 SG. IN
(38:007)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(38:008)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .002

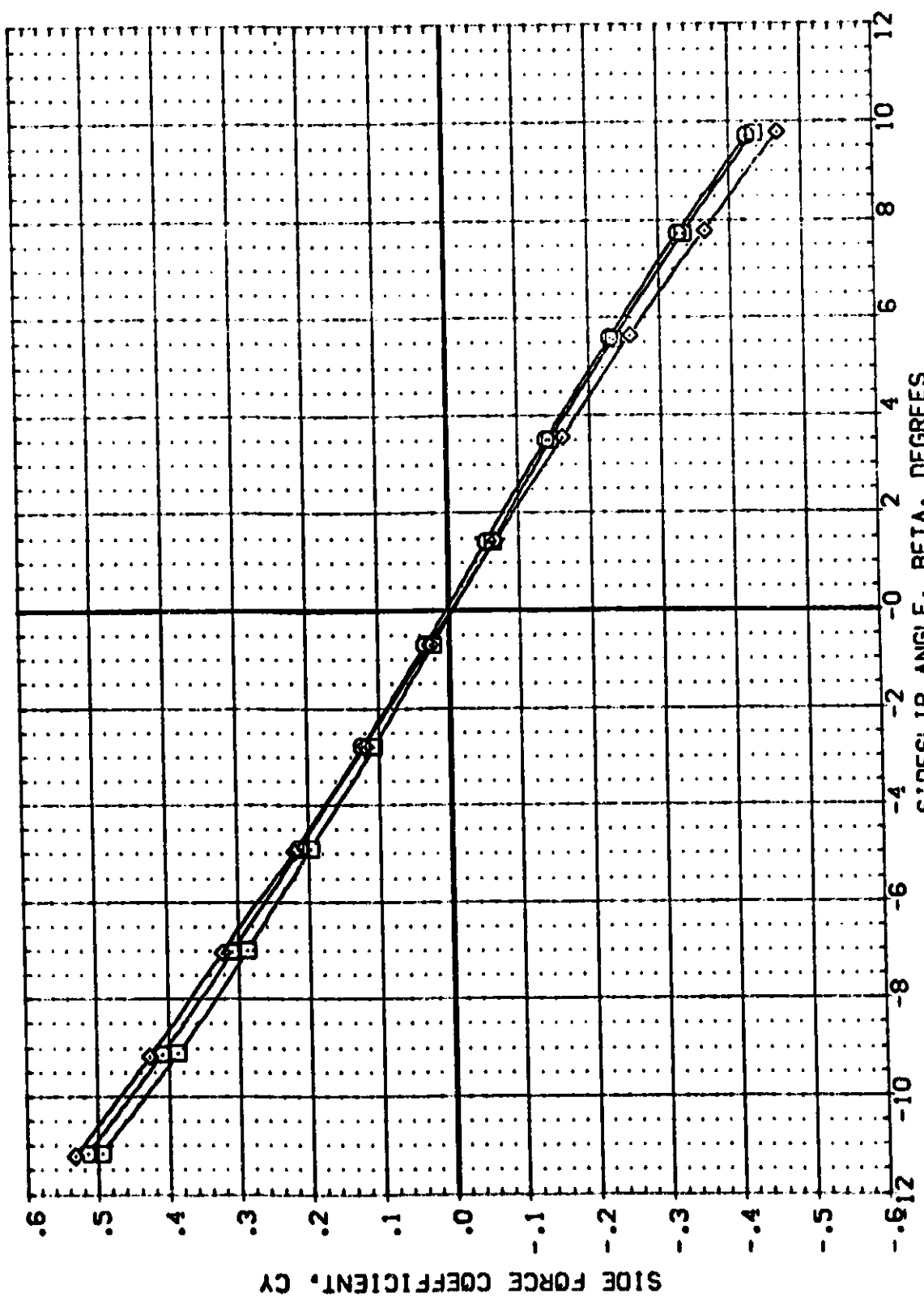


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(COMACH = .25



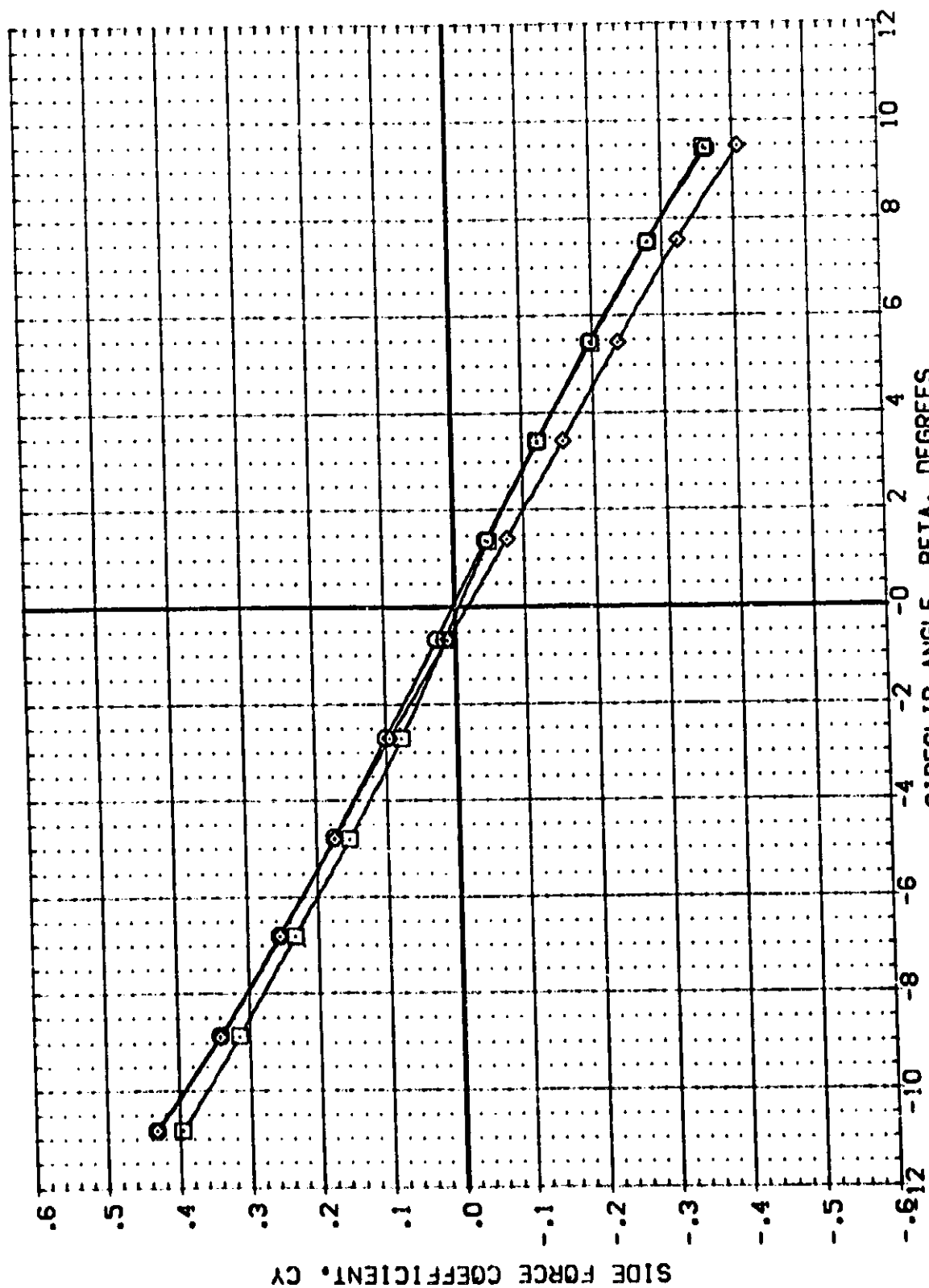
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(081082)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.36	.000	SREF 6.198
(081087)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.36	.000	LREF 5.313
(081088)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.36	.000	BREF 2.313
						X-REF 2.549
						Y-REF .000
						Z-REF .000
						SCALE .004



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

COMACH = 1.46

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORIGIN		X-SRB		DELTA Z		ALPHA		REFERENCE INFORMATION	
28:002	□	MSC 566	[A31F] MCR 0074 LV 03 19 S3	.500	.000	.136	.000	.136	.000	SREF	6.198	SC	IN
28:007	◇	MSC 566	[A31F] MCR 0074 LV 03 19 S3	.500	.000	.136	.000	.136	.000	LREF	5.313		
28:008	◇	MSC 566	[A31F] MCR 0074 LV 03 19 S3	.500	.000	.136	.000	.136	.000	BREF	5.313		
										YREF	2.549		
										ZREF	.000		
										SCALE	.004		

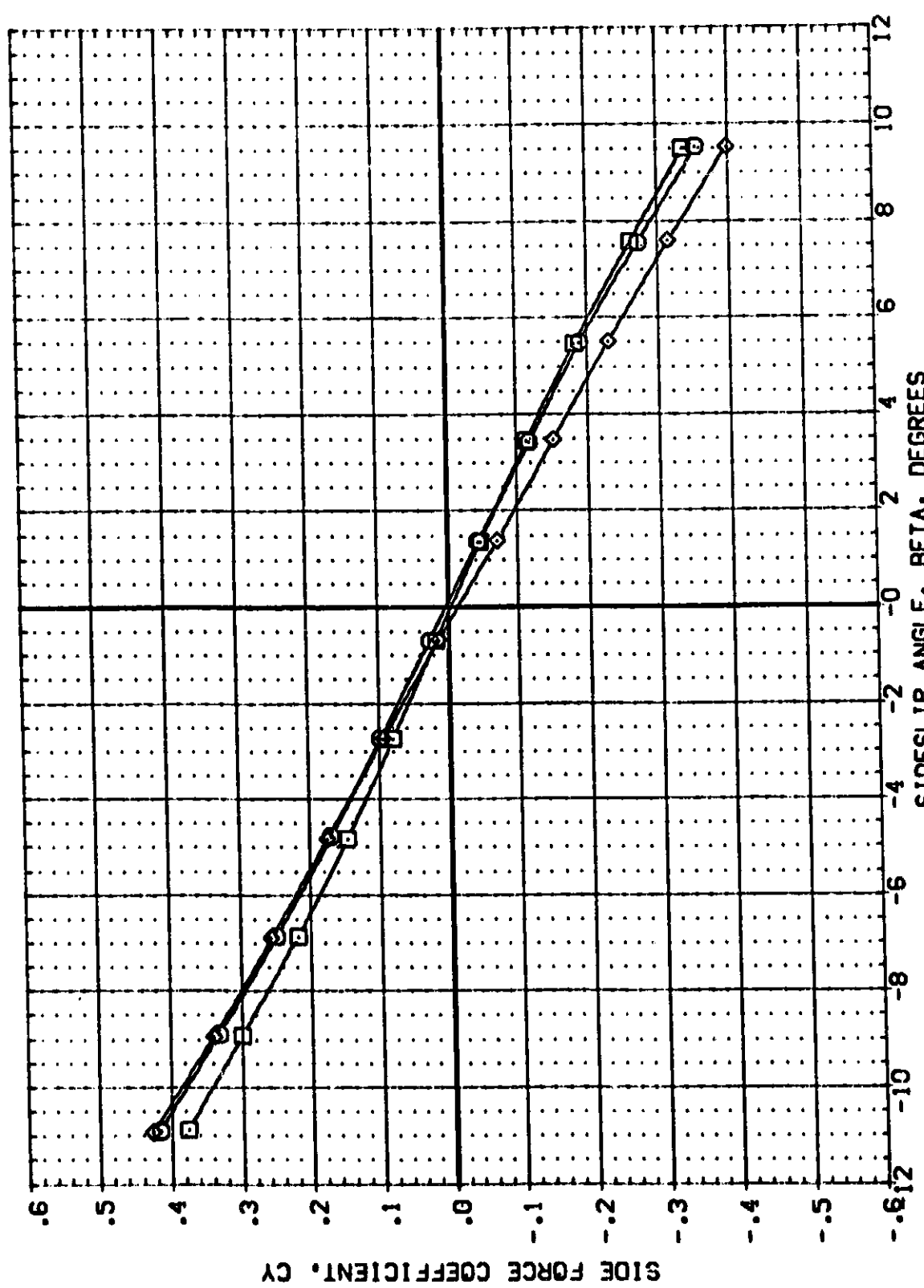


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(EDMACH = 2.99



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION	
(081002)	MSC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF	6.198
(081007)	MSC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF	5.313
(081008)	MSC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	BREF	5.313
						X-REF	2.549
						Y-REF	.000
						Z-REF	.000
						SCALE	.004

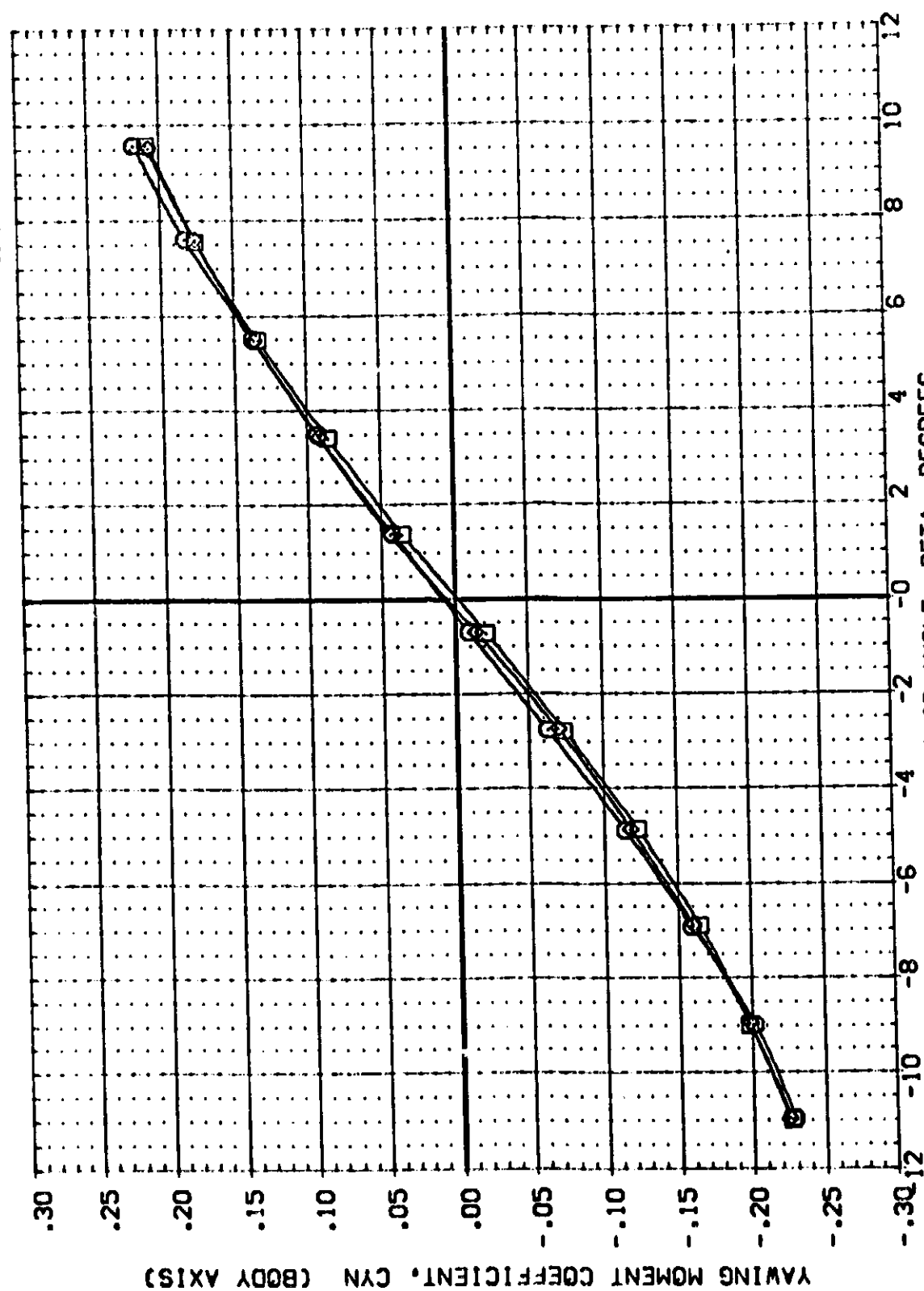


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(F)MACH = 3.48

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
[28] 007	WFC 566 [1A3:F] WCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
[28] 007	WFC 566 [1A3:F] WCR 0074 LV 03 19 S3	.500	.000	.136	5.000	LREF 5.313
[28] 008	WFC 566 [1A3:F] WCR 0074 LV 03 19 S3	.500	.000	.136	-5.000	BREF 5.313
						XWPP 2.549
						YWPP .000
						ZWPP .000
						SCALE .004

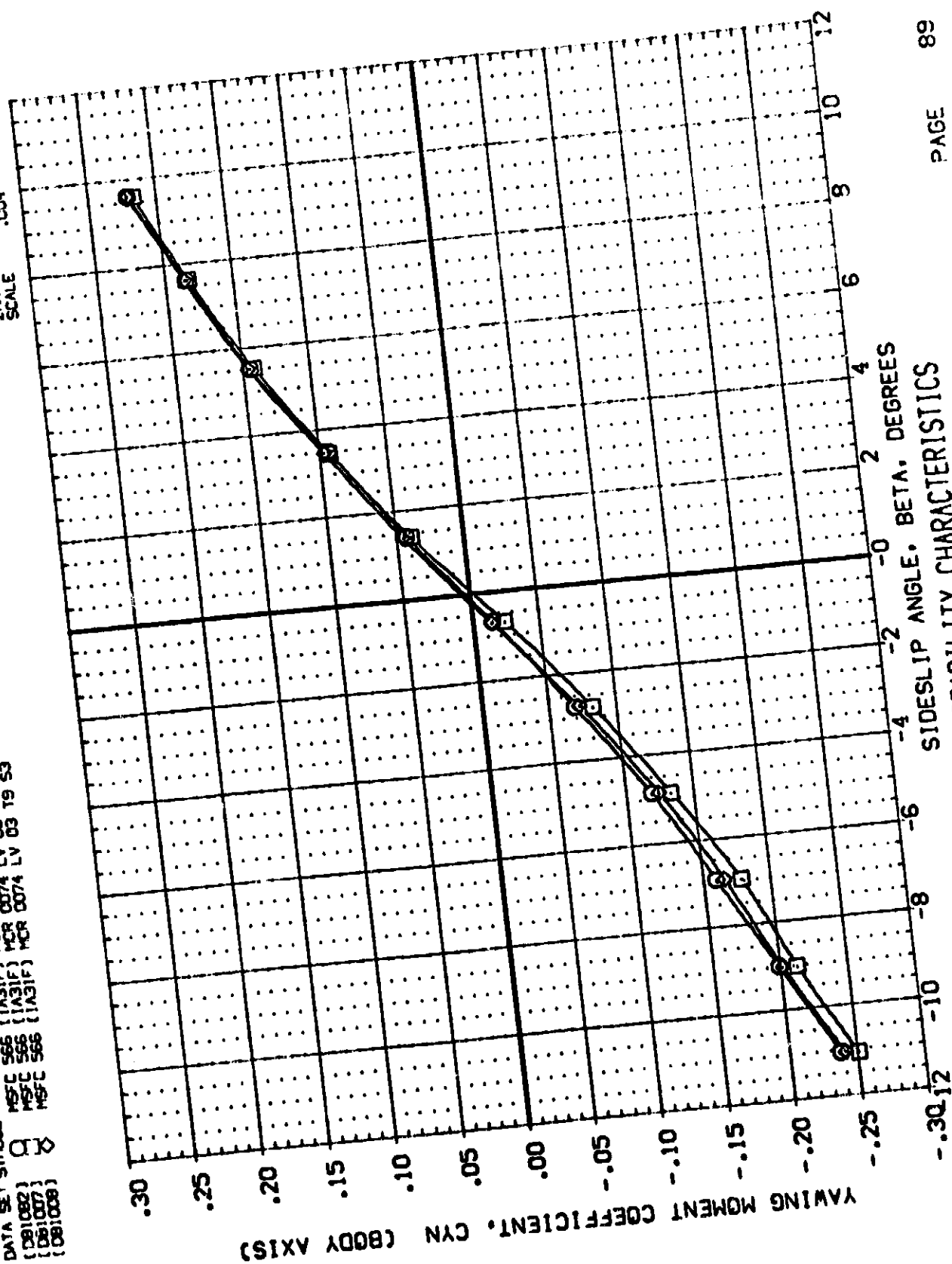


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(A) MACH = 0.90

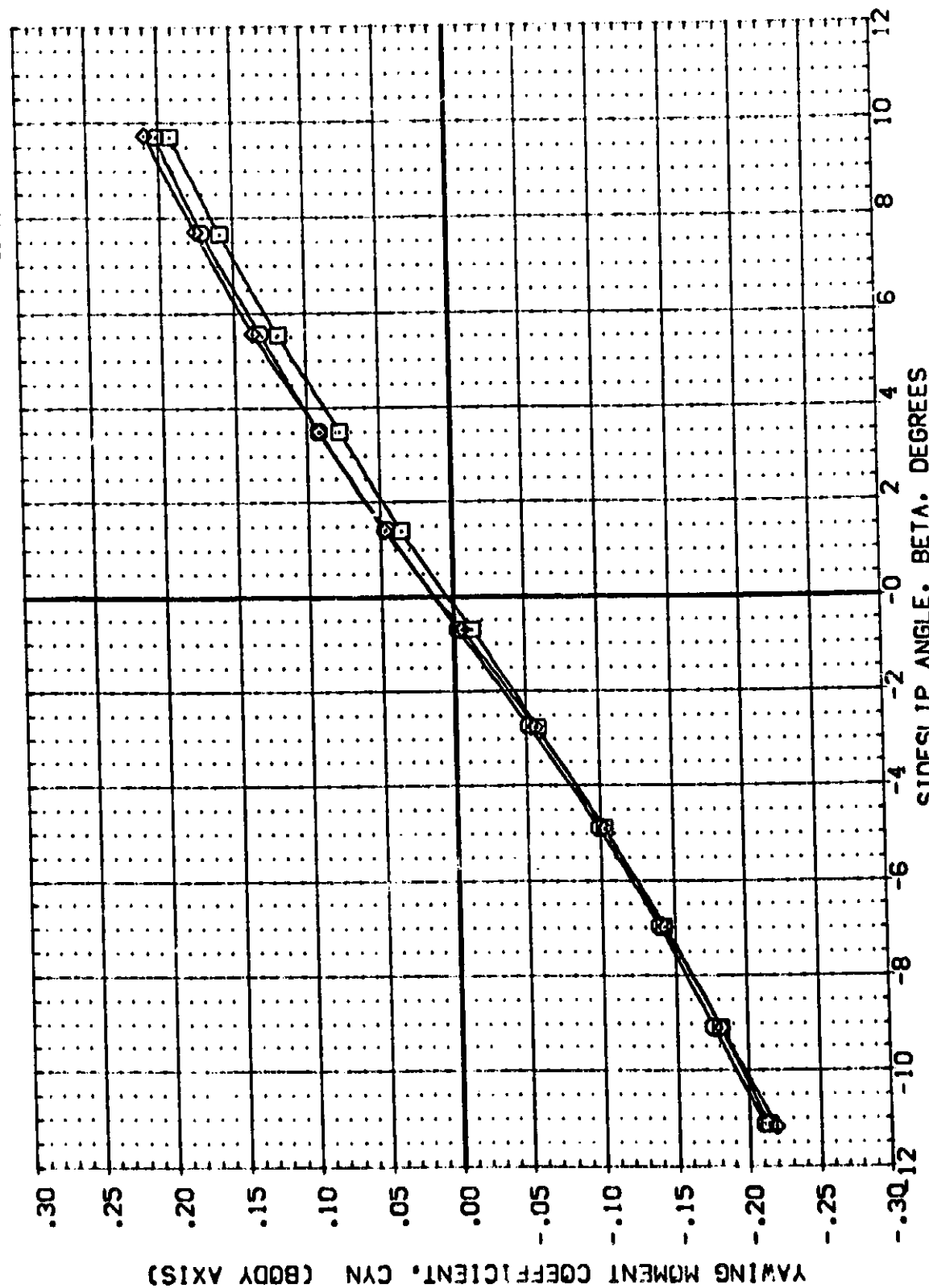
	REFERENCE INFORMATION		SD.	IN.
ORGINC	5.000	5.000	5.198	IN.
X-SRB	.000	.000	5.213	IN.
DELTA Z	.136	.000	5.213	IN.
	.136	5.000	2.548	IN.
	.136	-5.000	.000	IN.
			.000	
			.000	
			.000	
			.004	
			SCALE	

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	T9	S3
Q	MSFC 566 {IA31F}	MCR 0074 LV	03	T9 S3
Q	MSFC 566 {IA31F}	MCR 0074 LV	03	T9 S3
X	MSFC 566 {IA31F}	MCR 0074 LV	03	T9 S3
	MSFC 566 {IA31F}	MCR 0074 LV	03	T9 S3



EFFECT OF ANGLE
MACH = 1.05

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION	SO. IN
(081082)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198	12
(081087)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	5.000	LREF 5.313	12
(081088)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-5.000	BREF 5.313	12
						XMRP 2.549	12
						YMRP .000	12
						ZMRP .000	12
						SCALE .004	12

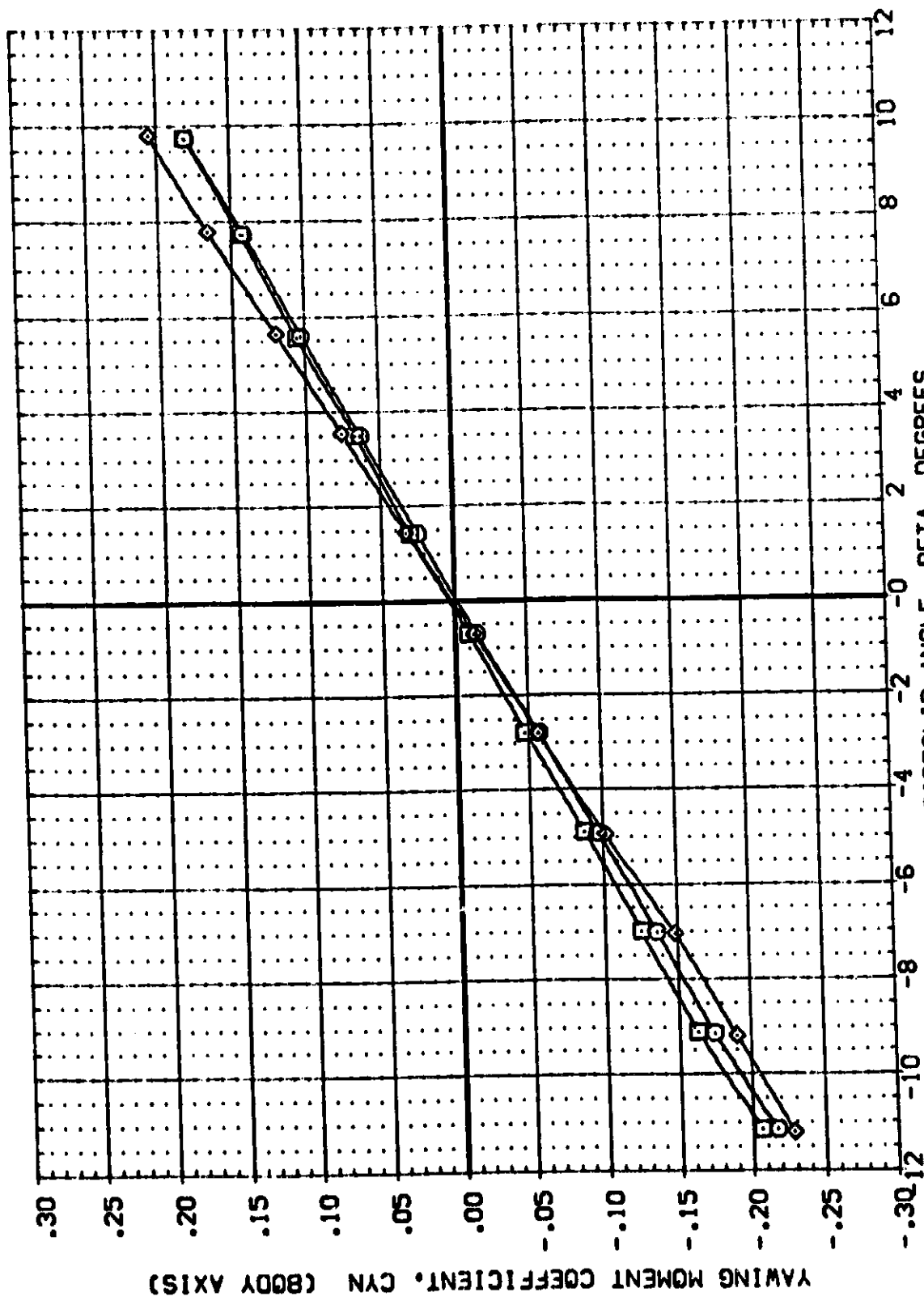


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(C)MACH = 1.25



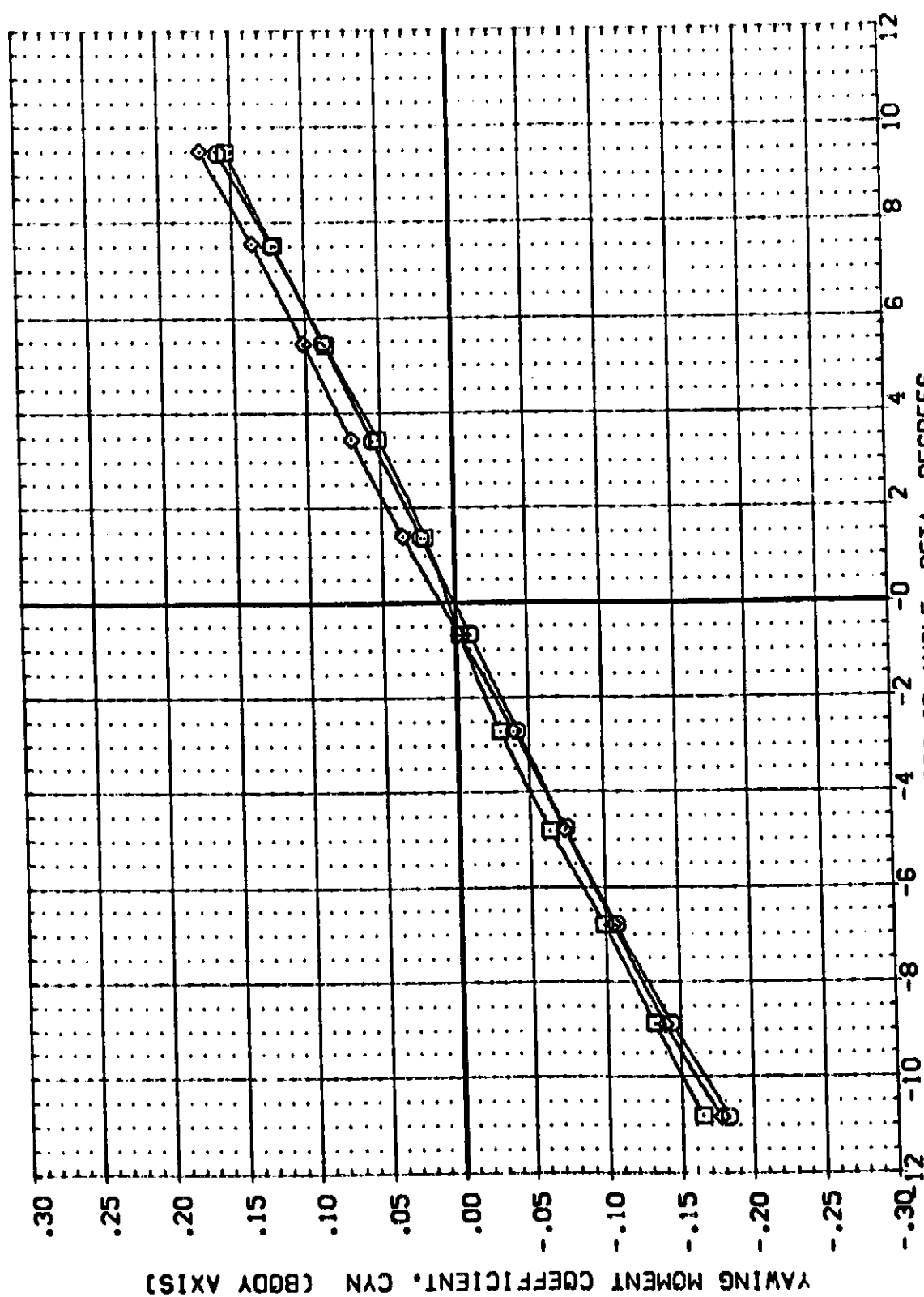
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SUB	DELTA Z	ALPHA	REFERENCE INFORMATION
(D81082)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(D81007)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	5.000	LREF 5.313
(D81008)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(D)MACH = 1.46

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(DB1082)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(DB1087)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(DB1088)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004

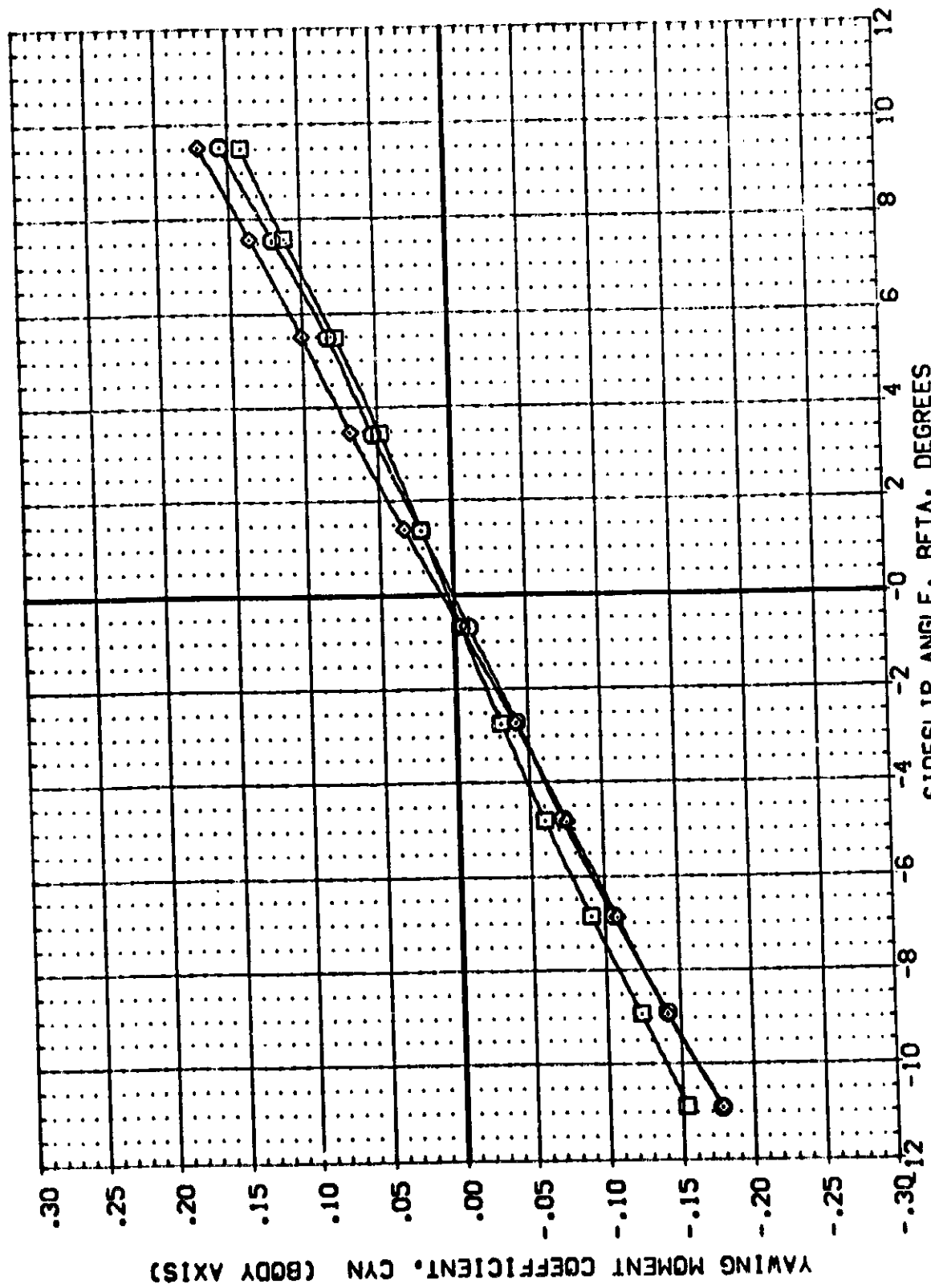


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(EDMACH = 2.99



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SUB	DELTA Z	ALPHA	REFERENCE INFORMATION	SO IN
(08:002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF 6.198	5.0
(08:007)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	LREF 5.313	5.0
(08:008)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	BREF 5.313	5.0
						YMRP 2.542	5.0
						ZMRP .000	5.0
						SCALE .004	5.0



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(F)MACH = 3.48

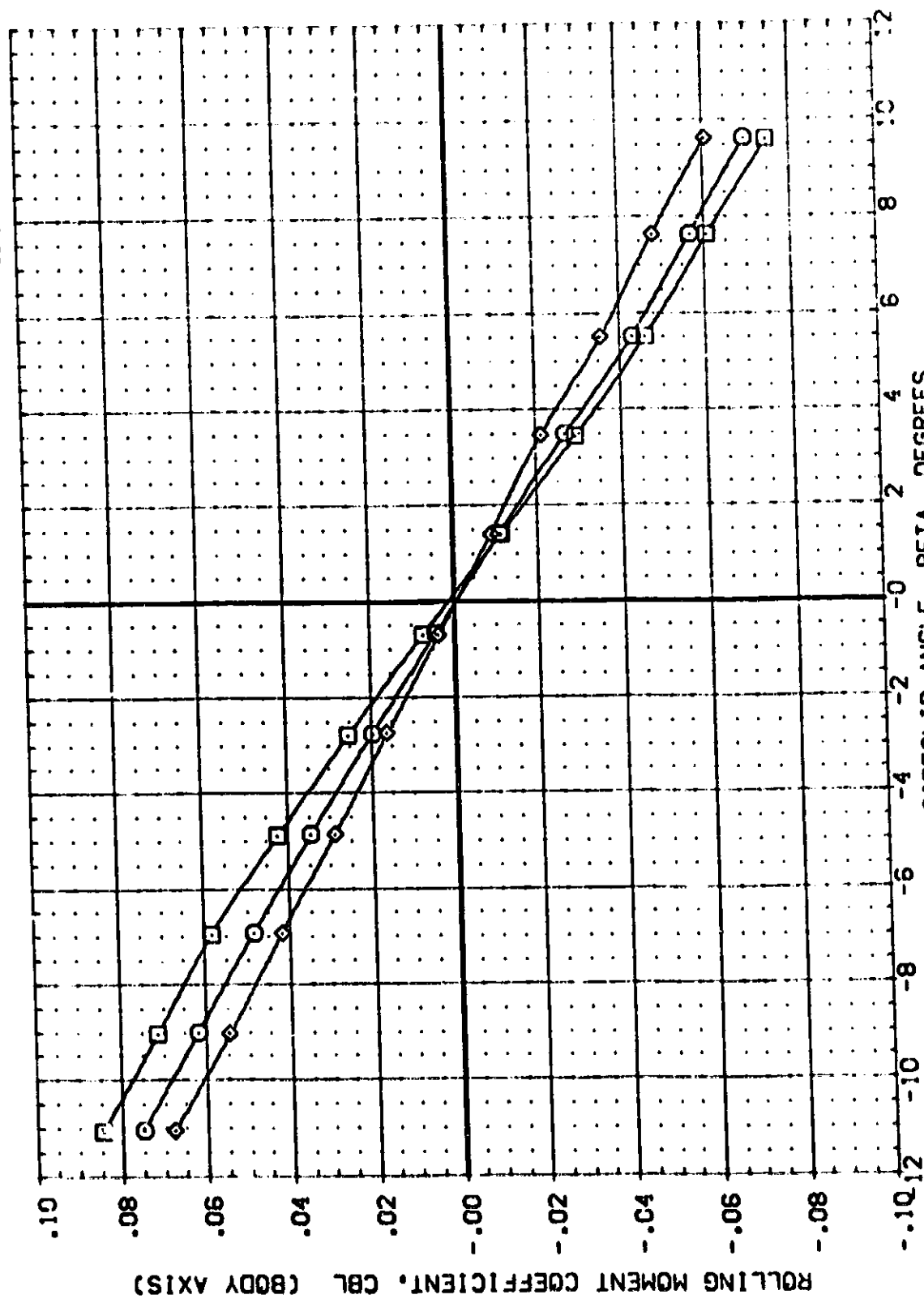
REFERENCE INFORMATION

SPEC	1-89
DATE	6-23-89
DRAWN BY	JM
CHECKED BY	N
XERO	2
VARS	1
ZOOM	1
SCALE	1:1


$$CACH = 0.90$$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION	SG
(081002)	M5C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF	5.198
(081007)	M5C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	5.000	LREF	5.313
(081008)	M5C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-5.000	BREF	5.313
						XMRP	2.549
						YMRP	.000
						ZMRP	.000
						SCALE	.004



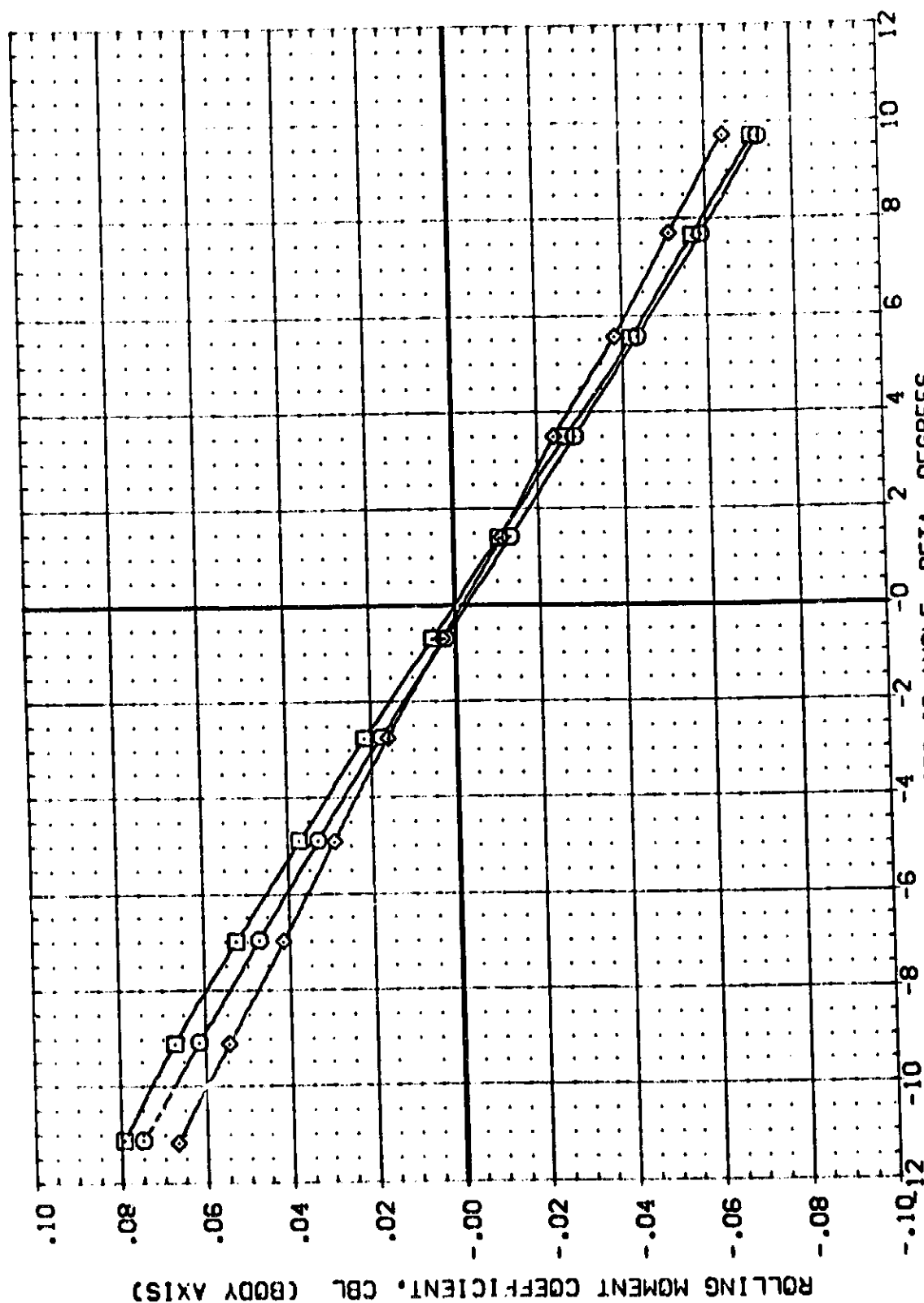
EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(3) VAC = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 :08:002: C M5C 566 [1A31F] MCR 0074 LV 33 19 S3
 :08:003: C M5C 566 [1A31F] MCR 0074 LV 03 19 S3
 :08:008: D M5C 566 [1A31F] MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTAZ ALPHA
 .500 .000 .000
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SREF 6.156
 LREF 5.313
 BREF 5.313
 XMRD 2.548
 YMRD .000
 ZMRD .000
 SCALE .001

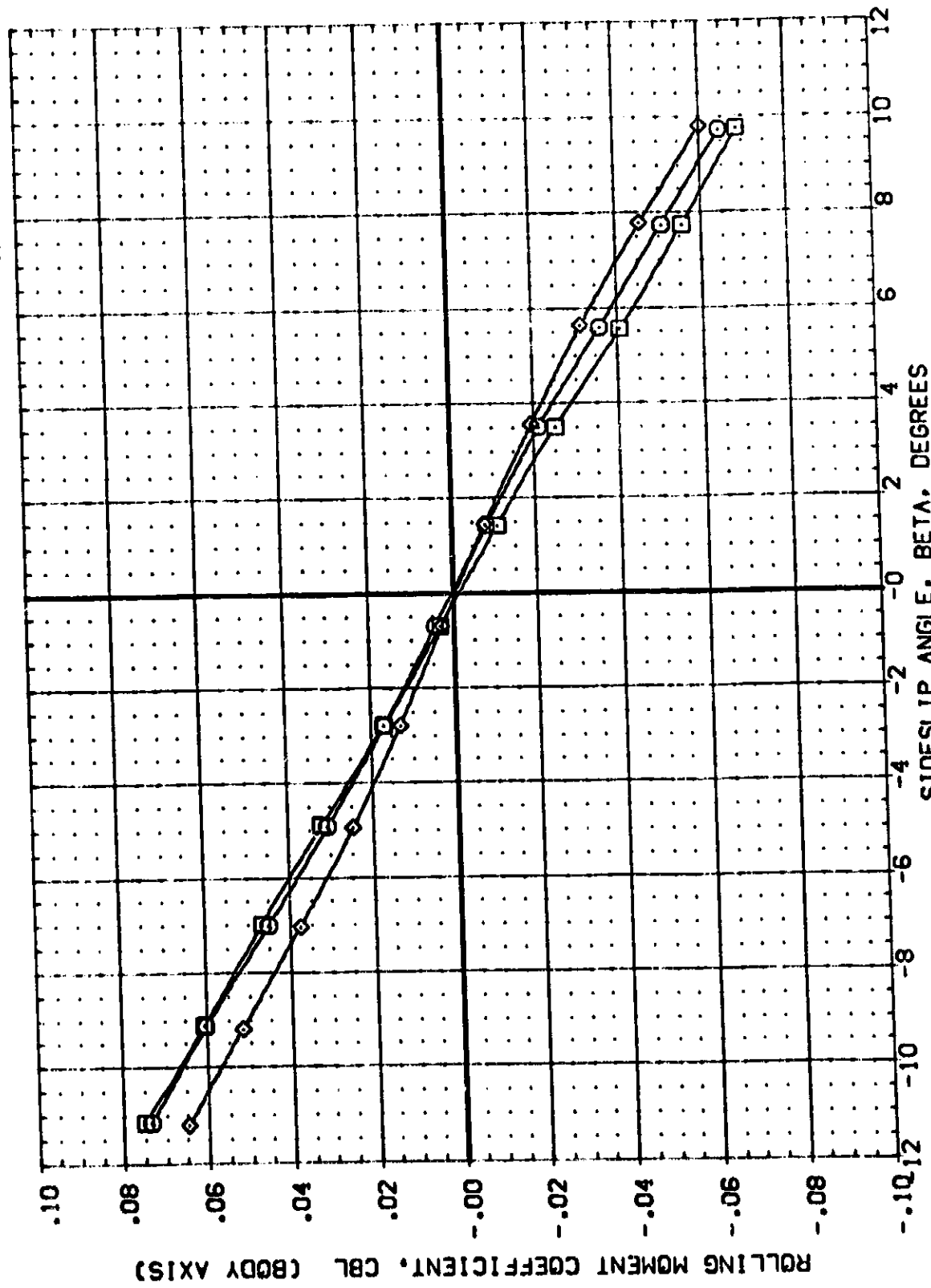


SIDELIP ANGLE, BETA, DEGREES

EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(C)MACH = 1.25

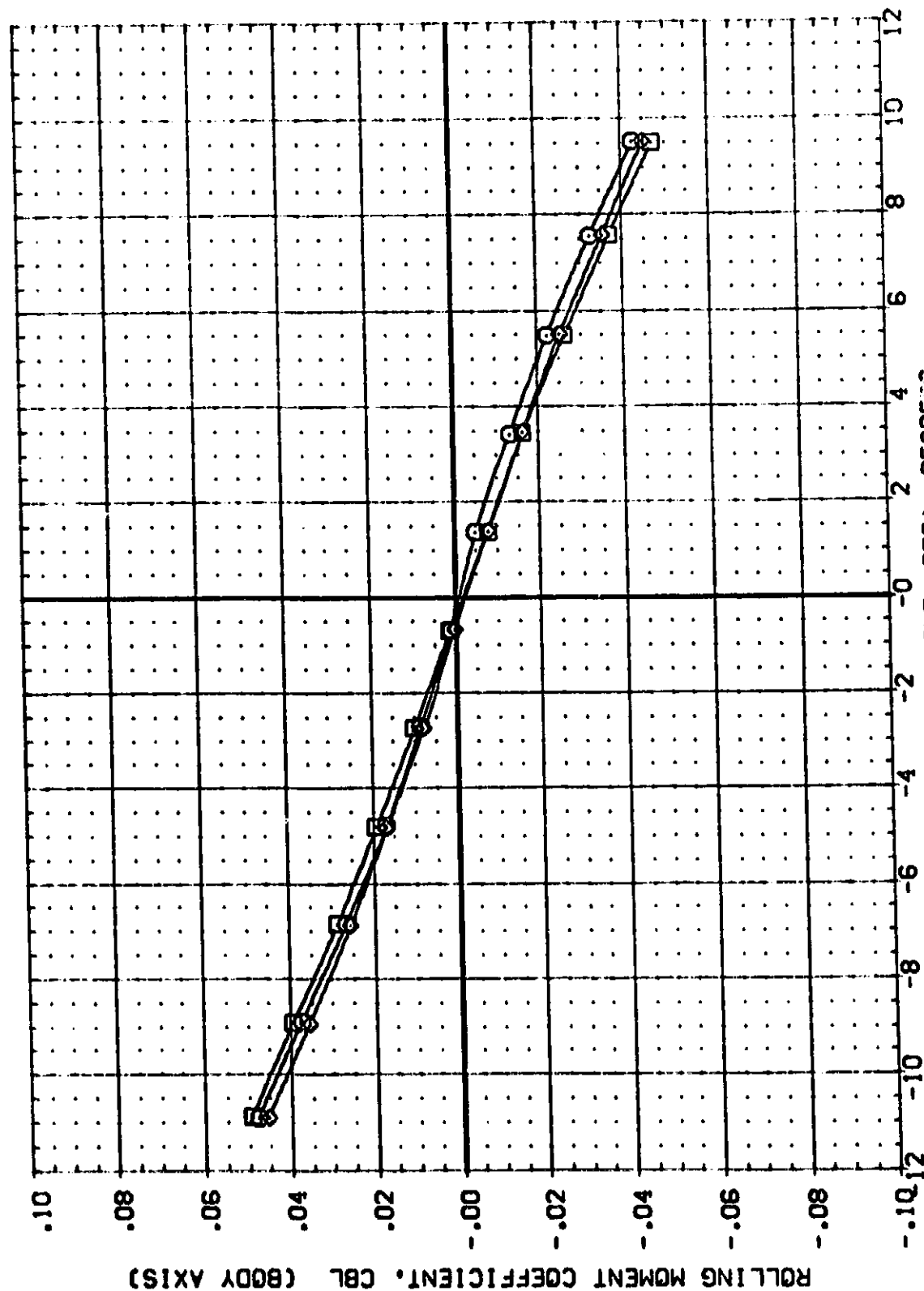
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION	
(DB1082)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(DB1087)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	5.000	LREF	5.313
(DB1088)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF	5.313
						XMRP	2.548
						YMRP	.000
						ZMRP	.000
						SCALE	.001



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(COMACH = 1.46

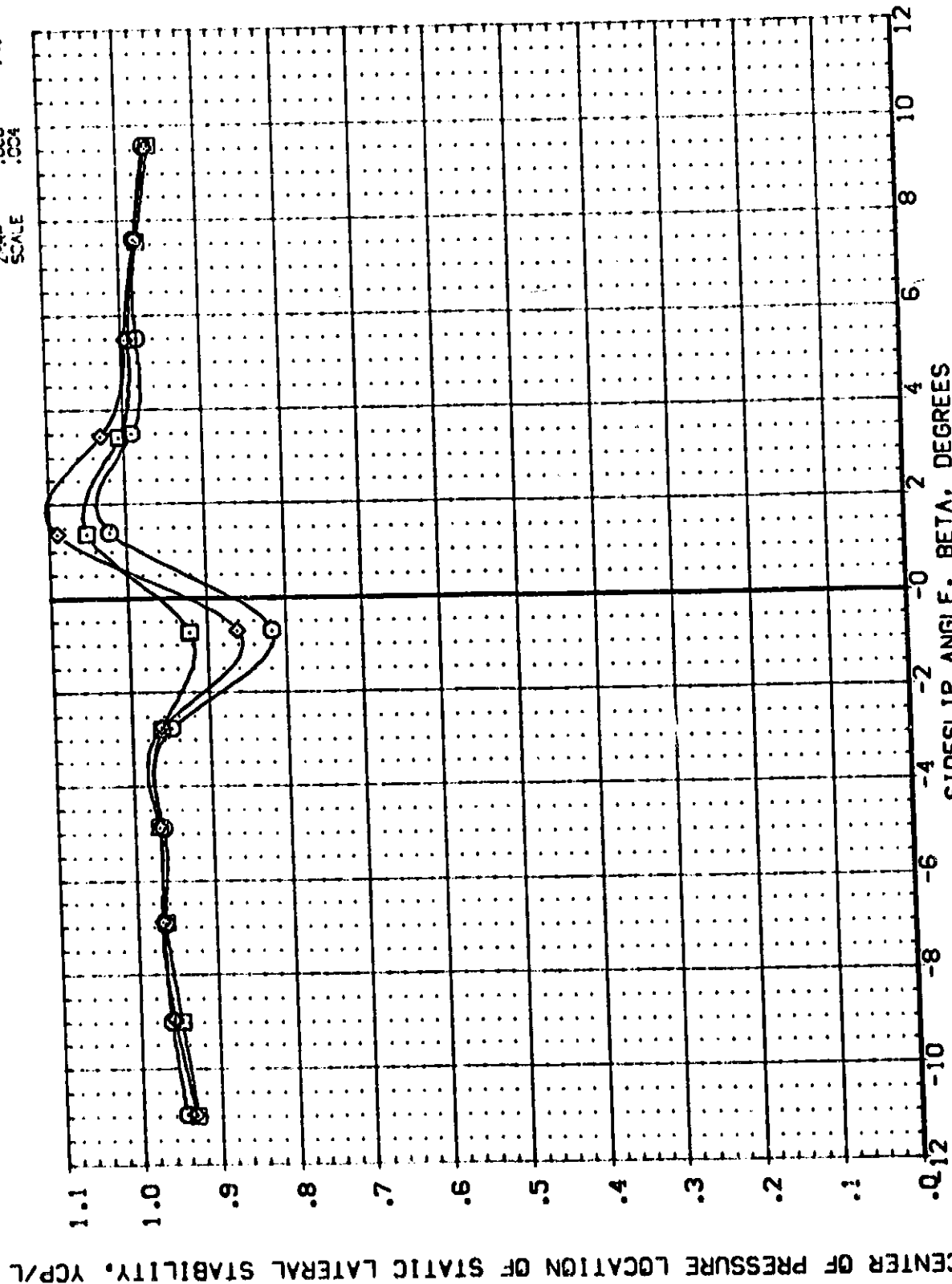
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(D81002)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 5.198
(D81007)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(D81008)	MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-.000	BREF 5.313
						YMRP 2.545
						ZMRP .000
						SCALE .004



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(F)MACH = 3.48

DATA SET SYMBOL: 081007, 081007, 081007, 081007
 CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3, MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3, MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3
 ORBITING: .500, .500, .500
 X-SRB: .000, .000, .000
 DELTA Z: .136, .136, .136
 ALPHA: .000, .000, .000
 REFERENCE INFORMATION: SREF 6.198, LREF 5.313, BREF 5.313, XREF 2.548, YREF .000, ZREF .000, SCALE .004

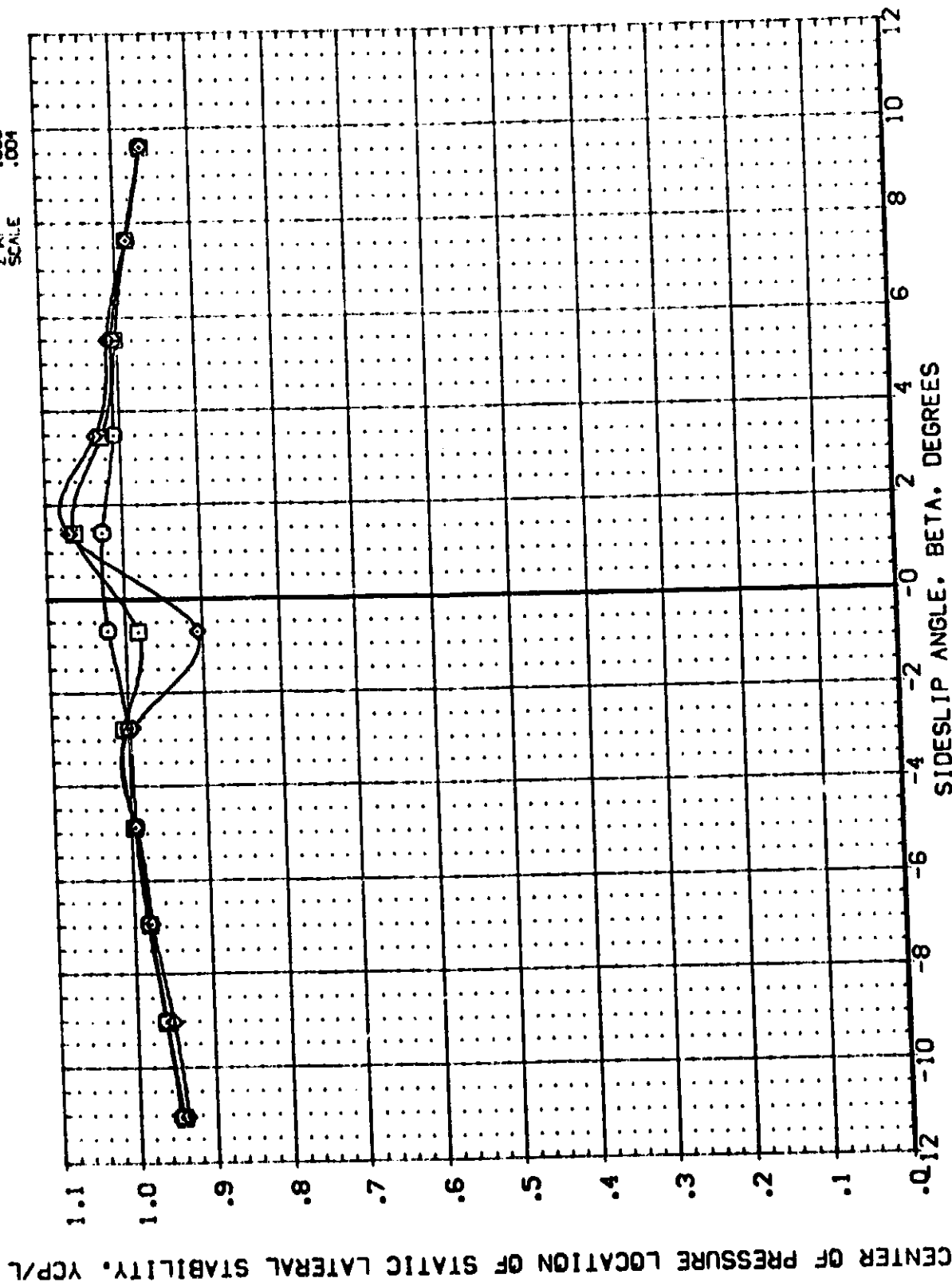


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(A) MACH = 0.90



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(281092)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198 IN.
(281097)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	5.000	LREF 5.313 IN.
(281098)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF 5.313 IN.
						X-REF 2.549 IN.
						Y-REF .000 IN.
						Z-REF .000 IN.
						SCALE .004



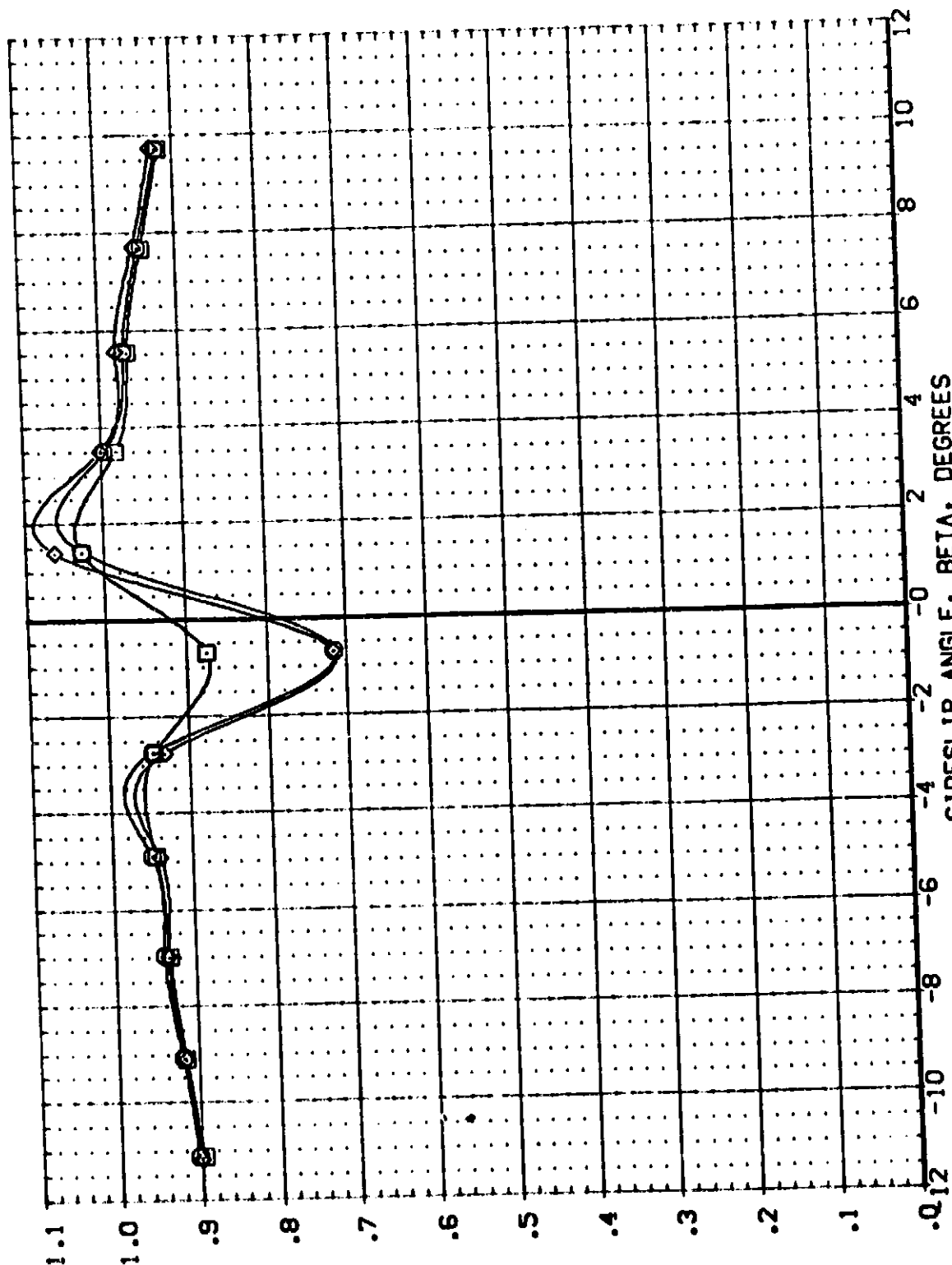
EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(B)MACH = 1.05

CENTER OF PRESSURE LOCATION OF STATIC LATERAL STABILITY, YCP/L

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081082) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (081083) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (081084) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z ALPHA REFERENCE INFORMATION
 .500 .000 .136 .000 SREF 5.198
 .500 .000 .136 .000 LREF 5.313
 .500 .000 .136 .000 BREF 5.313
 .500 .000 .136 .000 XREF 2.549
 .500 .000 .136 .000 YREF .000
 .500 .000 .136 .000 ZREF .000
 .500 .000 .136 .000 SCALE .004

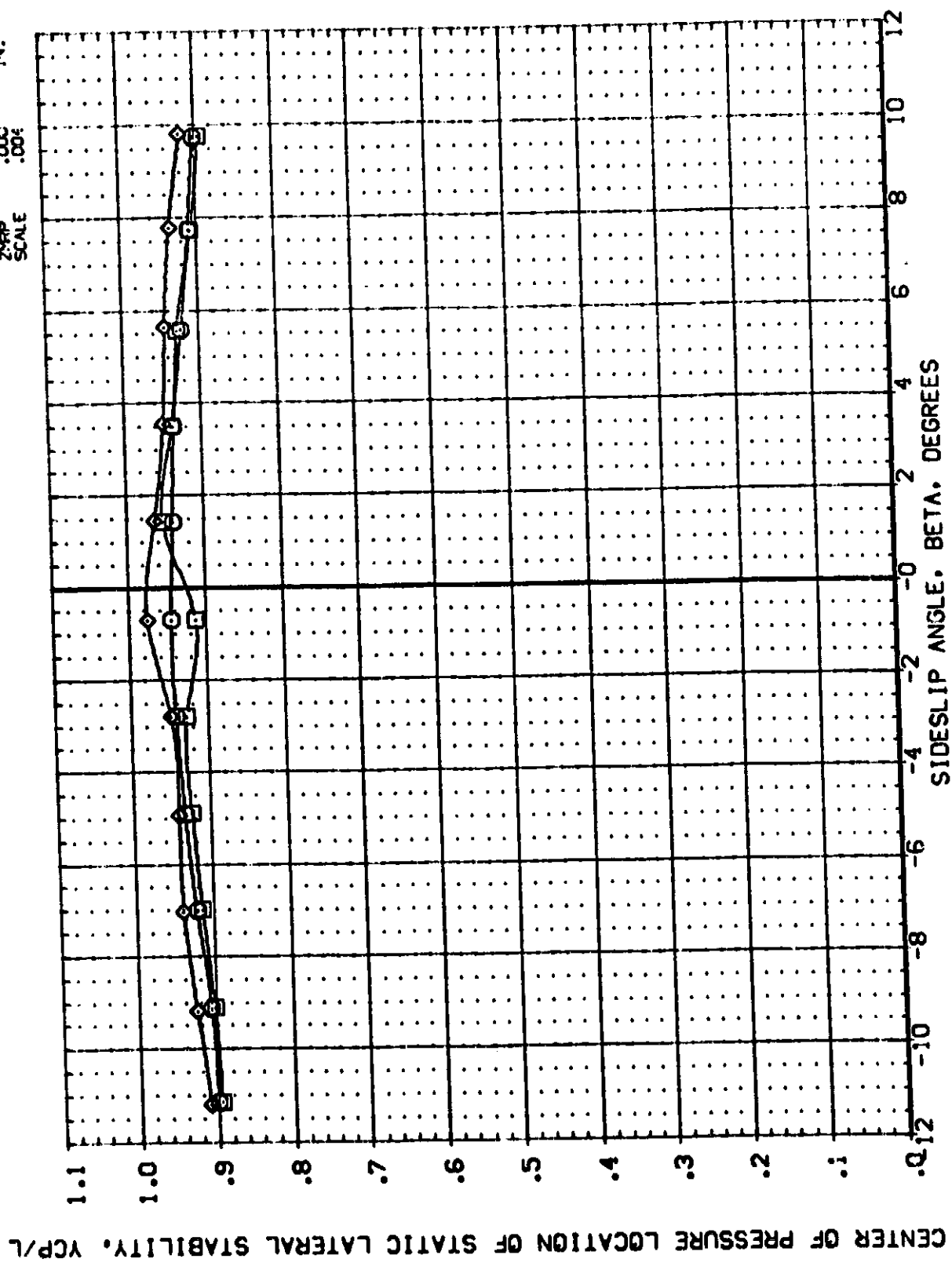


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(COMACH = 1.25

ORIGIN	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION			
.500	.000	.136	.000	SREF	6.198	SC	IN
.500	.000	.136	5.000	LREF	5.313	IN	IN
.500	.000	.136	-5.000	BREF	5.313	IN	IN
				YMRP	2.549	IN	IN
				ZMRP	.000	IN	IN
				SCALE	.004		

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LV	03	19	53
(081082)	MSC 566 (1A31F) MCR 0074	LV	03	19	53
(081087)	MSC 566 (1A31F) MCR 0074	LV	03	19	53
(081088)	MSC 566 (1A31F) MCR 0074	LV	03	19	53

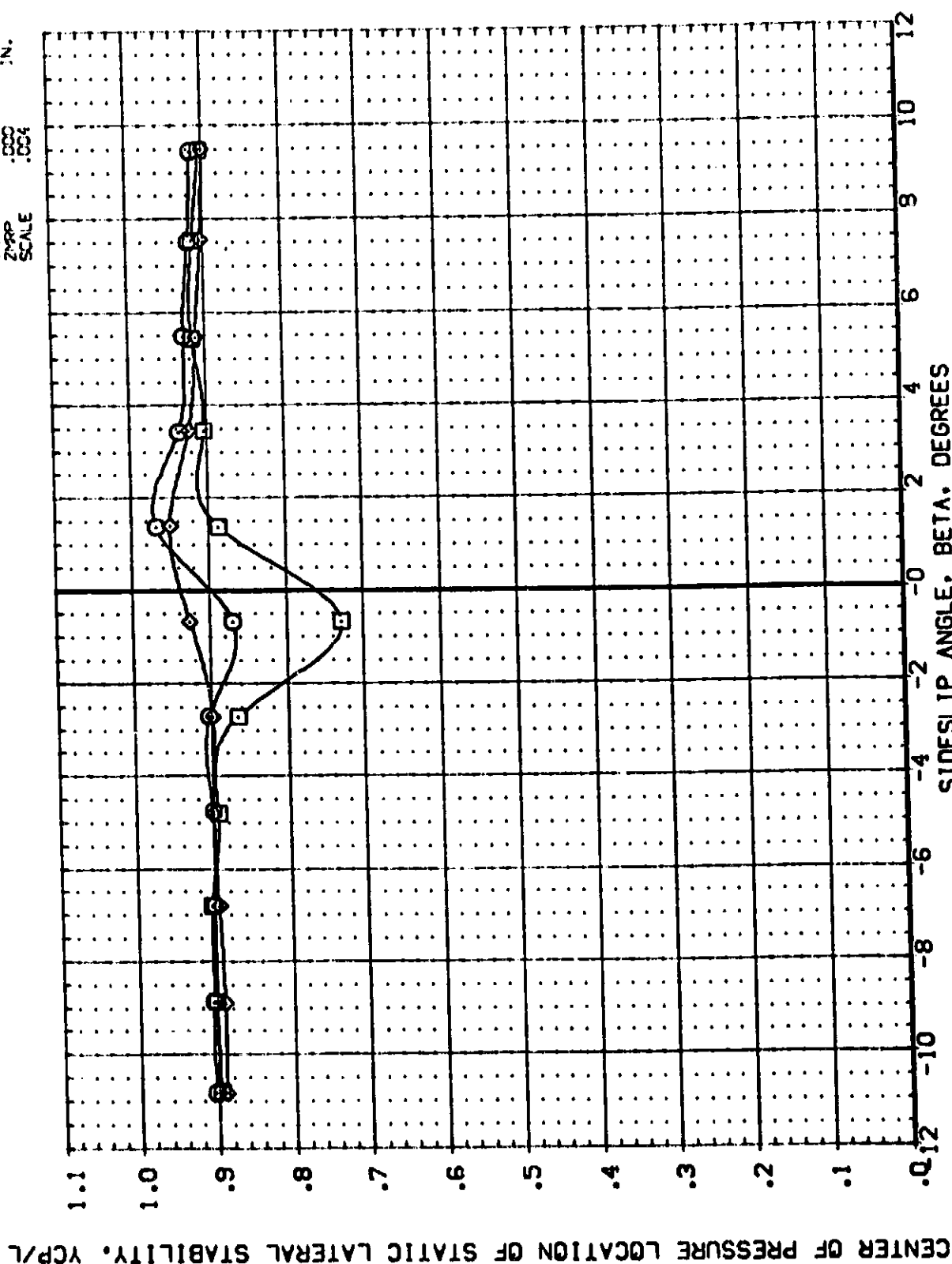


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

COMACH = 1.46

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORIGIN X-SRS DELTAZ ALPHA REFERENCE INFORMATION SD. IN

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRS	DELTaz	ALPHA	REFERENCE INFORMATION	SD. IN
(281082)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198	N.
(281087)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	5.000	LREF 5.313	N.
(281028)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	BREF 5.313	N.
						XMRP 2.549	N.
						YMRP .000	N.
						ZMRP .000	N.
						SCALE .004	

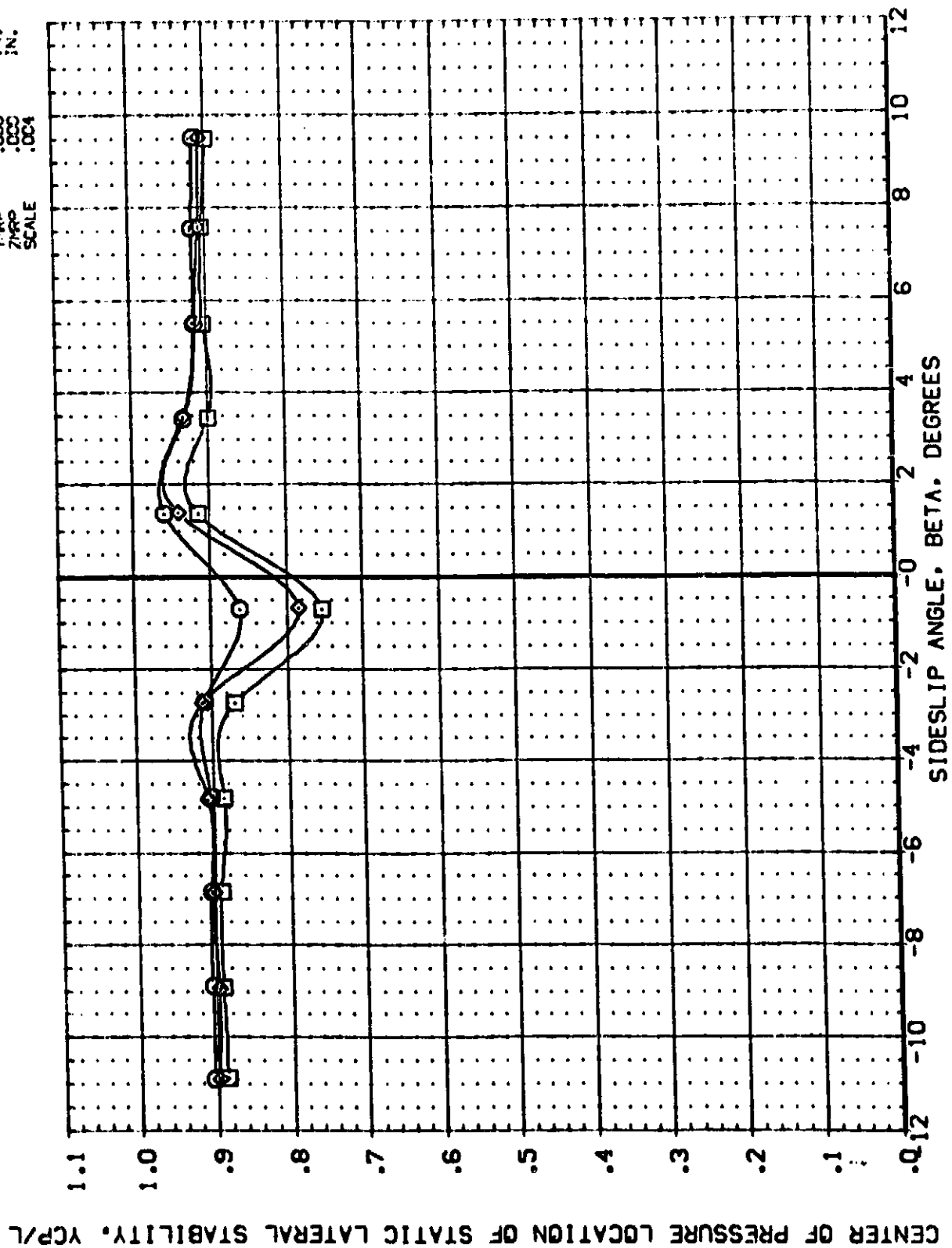


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(E)MACH = 2.99



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(081002)	□	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081007)	○	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	5.000	REF 5.313
(081008)	◇	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-5.000	SREF 5.313
							XMRP 2.545
							YMRP .000
							ZMRP .000
							SCALE .004

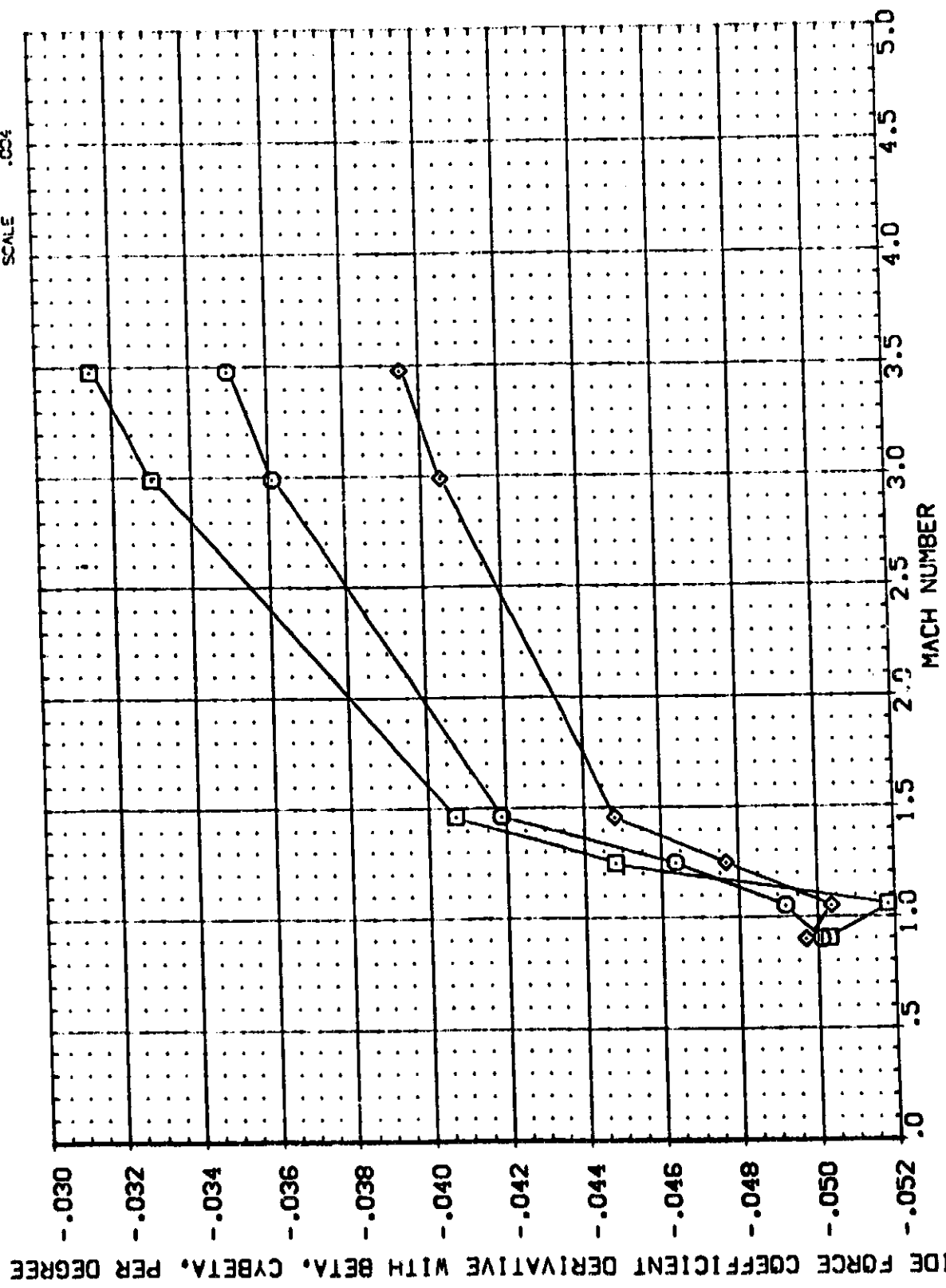


EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

(F)MACH = 3.48

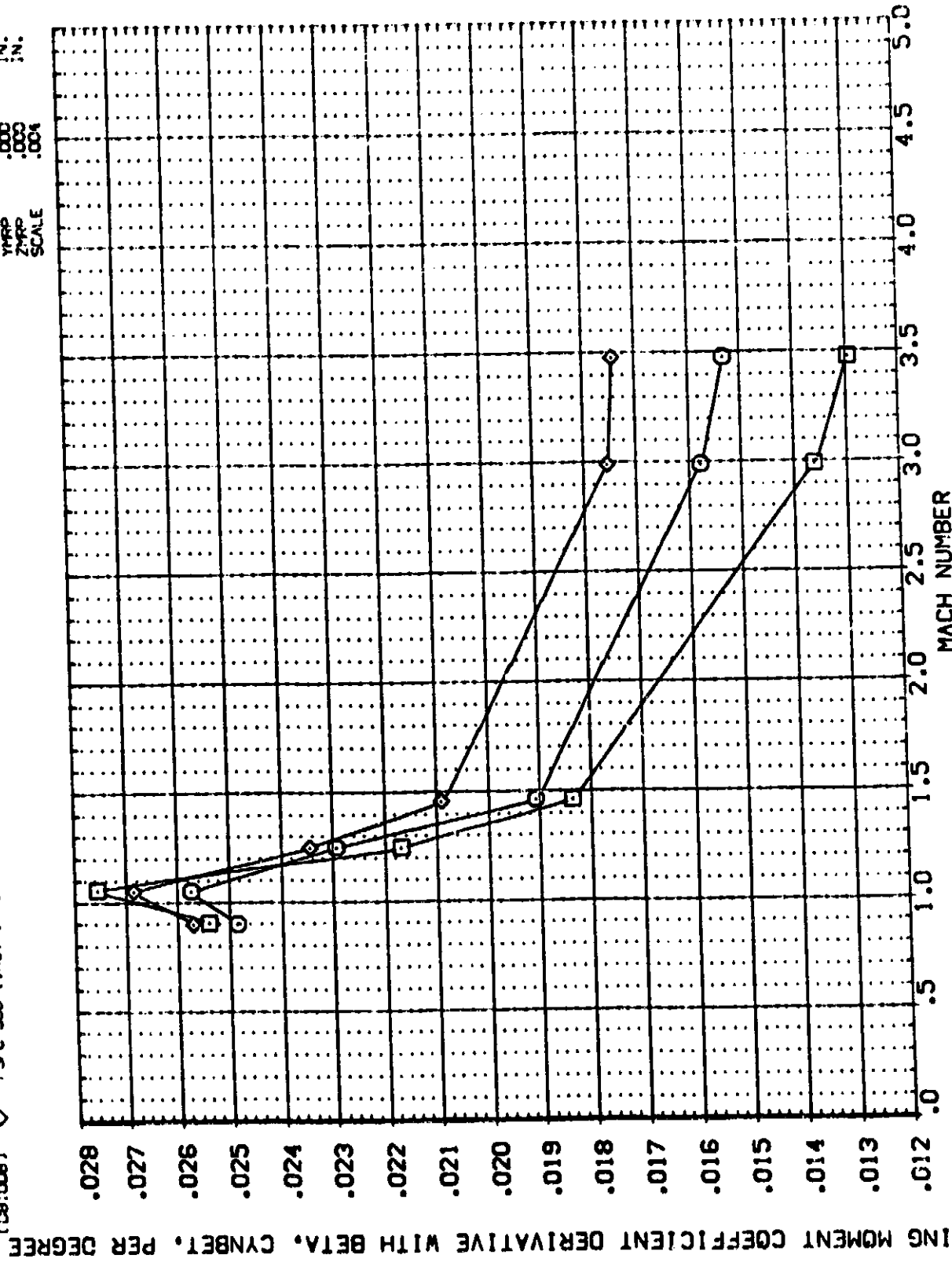
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DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(081032)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081007)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	5.000	LREF 5.313
(081008)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-5.000	BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

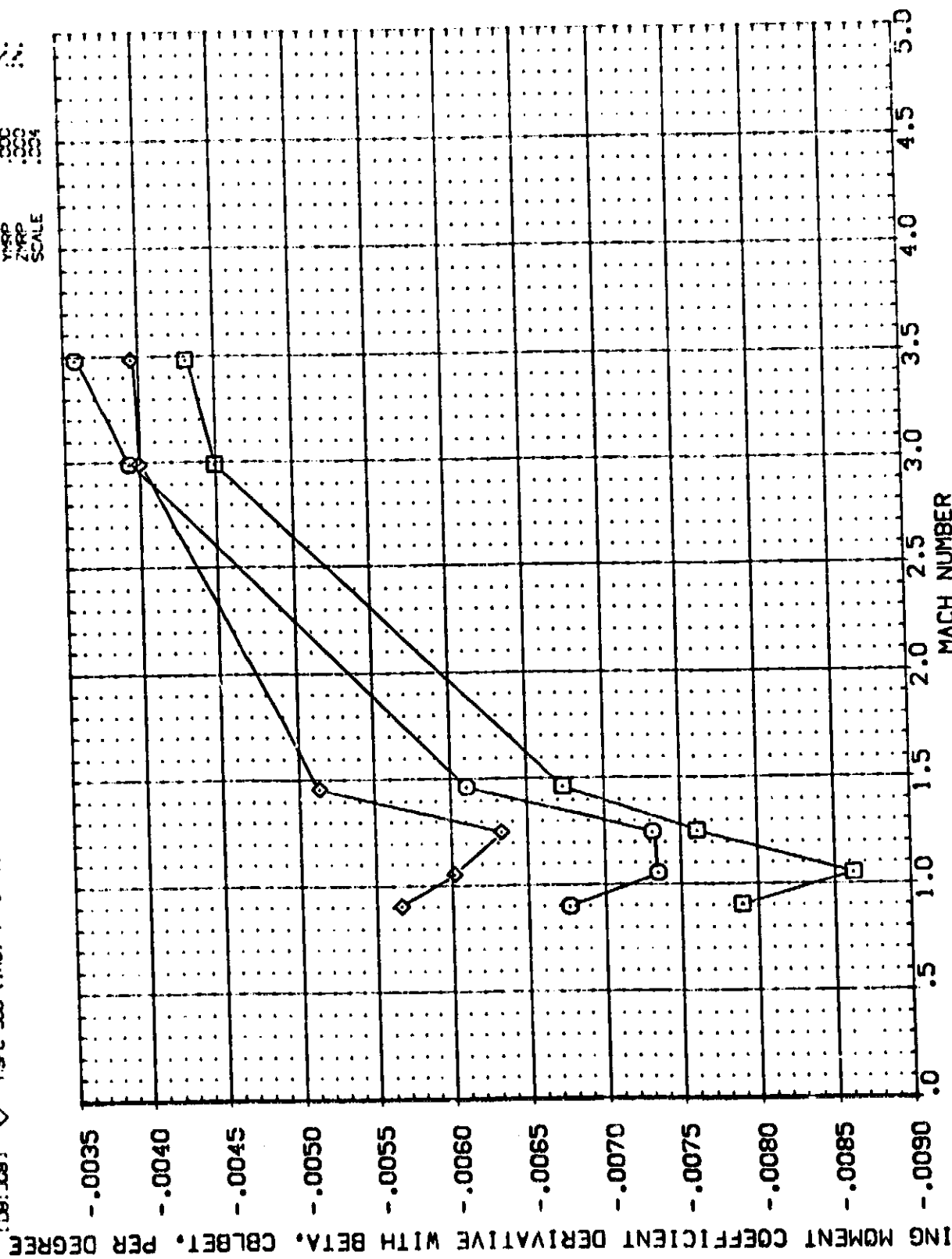
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
(DB10B2)	MSC S86 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(DB10B7)	MSC S86 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
(DB10B8)	MSC S86 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004



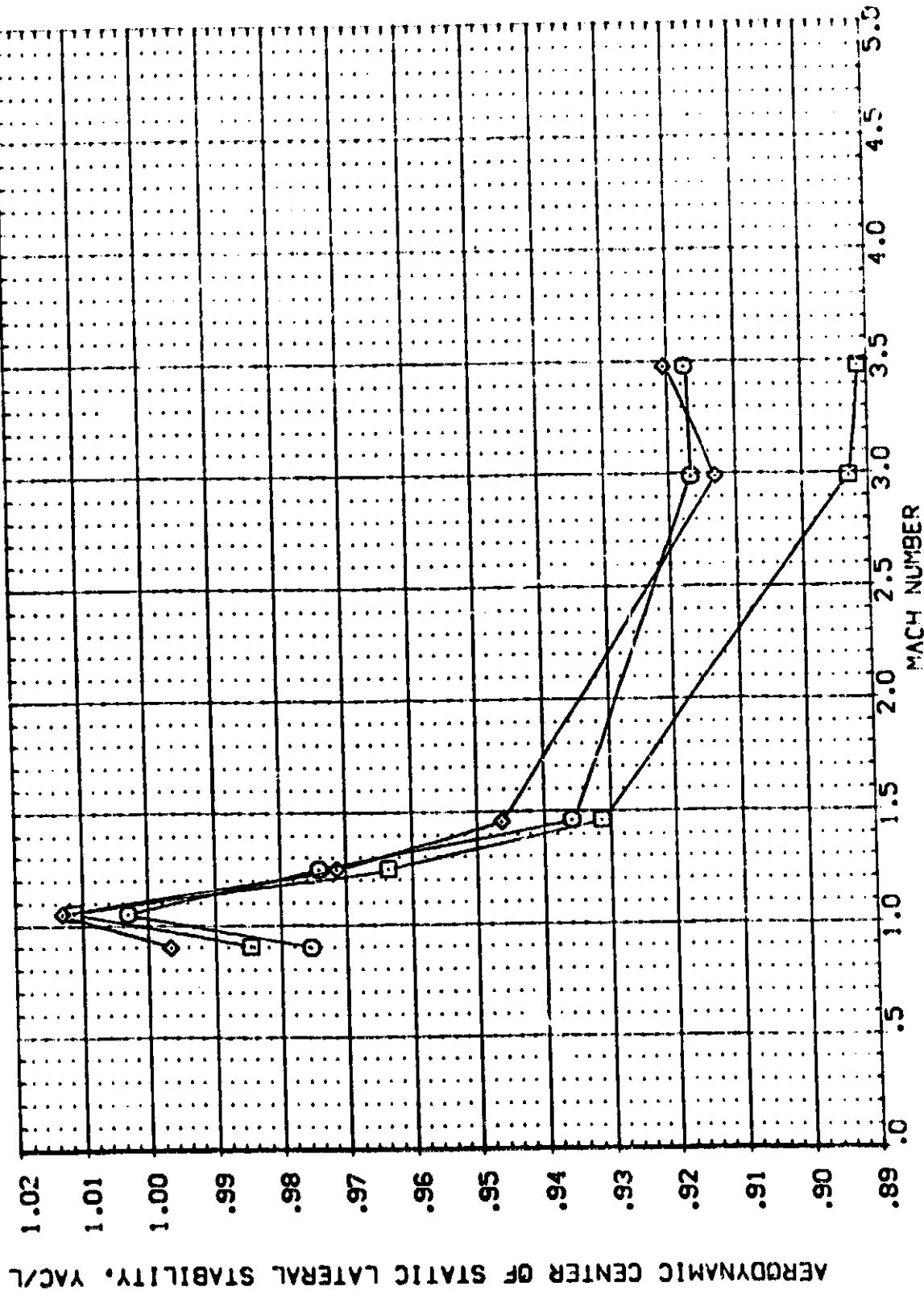
EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	ALPHA	REFERENCE INFORMATION
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	SREF 6.198
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	LREF 5.313
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	BREF 5.313
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	XREF 2.549
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	YREF .000
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	ZREF .000
MSFC 566 (1A31F) MCR 0074 LV 03 19 S3		.500	.000	.136	.000	SCALE .004



EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

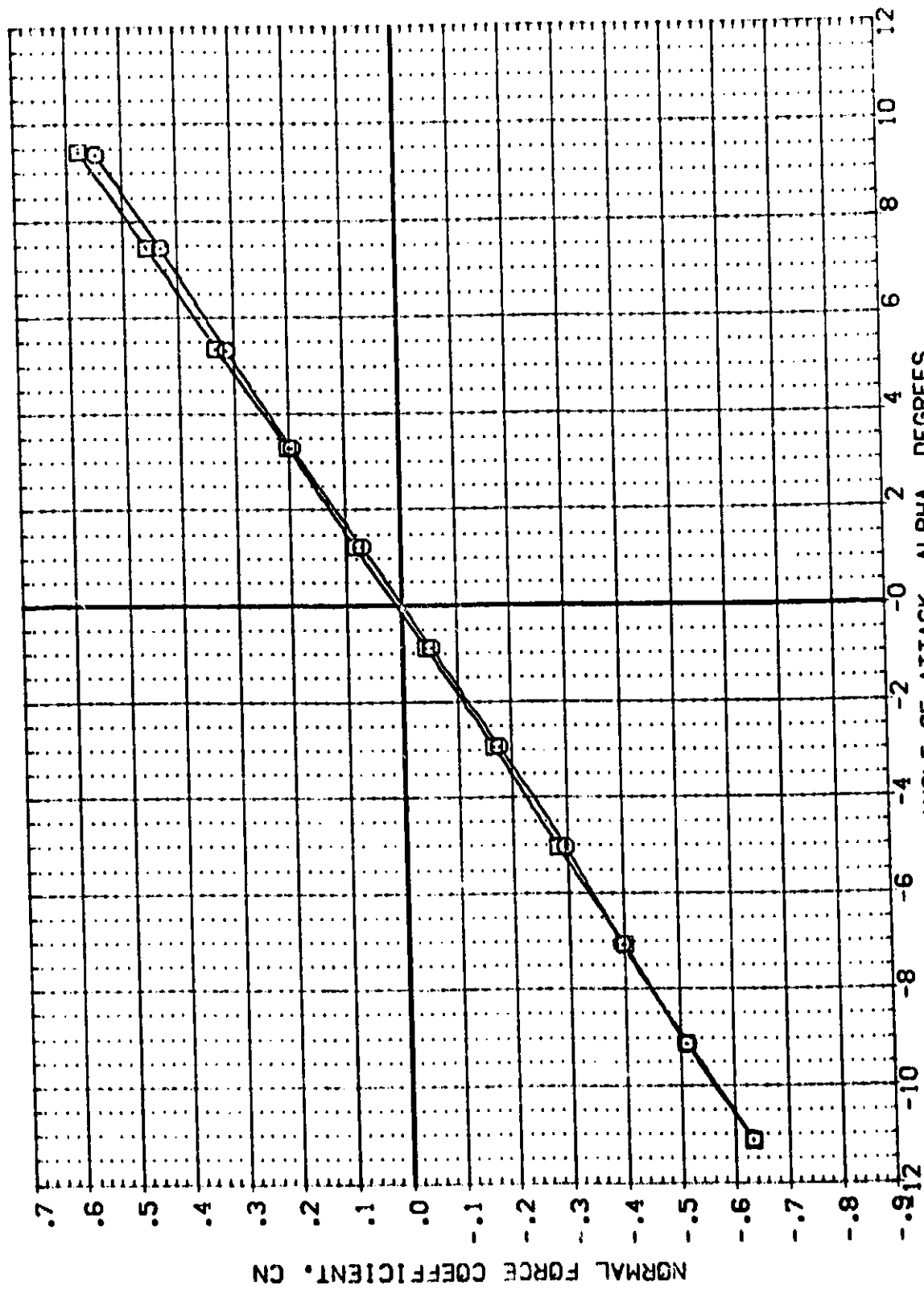
[illegible]

EFFECT OF ANGLE OF ATTACK ON STABILITY CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1001) MFC 566 (1A31F) MCR 007A
 (DB1009) MFC 566 (1A31F) MCR 007A

33

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SO. IN
 .500 .000 .000 SREF 6.198
 .500 .000 .000 LREF 5.313
 .400 .000 .000 BREF 5.313
 XMRP 2.548
 YMRP .000
 ZMRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(A) MACH = 0.60

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(281001) M5FC 566 (1A31F) MCR 0074 LV 03 19 S3

(281002) M5FC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTAZ RUDDER REFERENCE INFORMATION SQ. IN

.500 .000 .000 SREF 5.198

.400 .000 .000 LREF 5.313

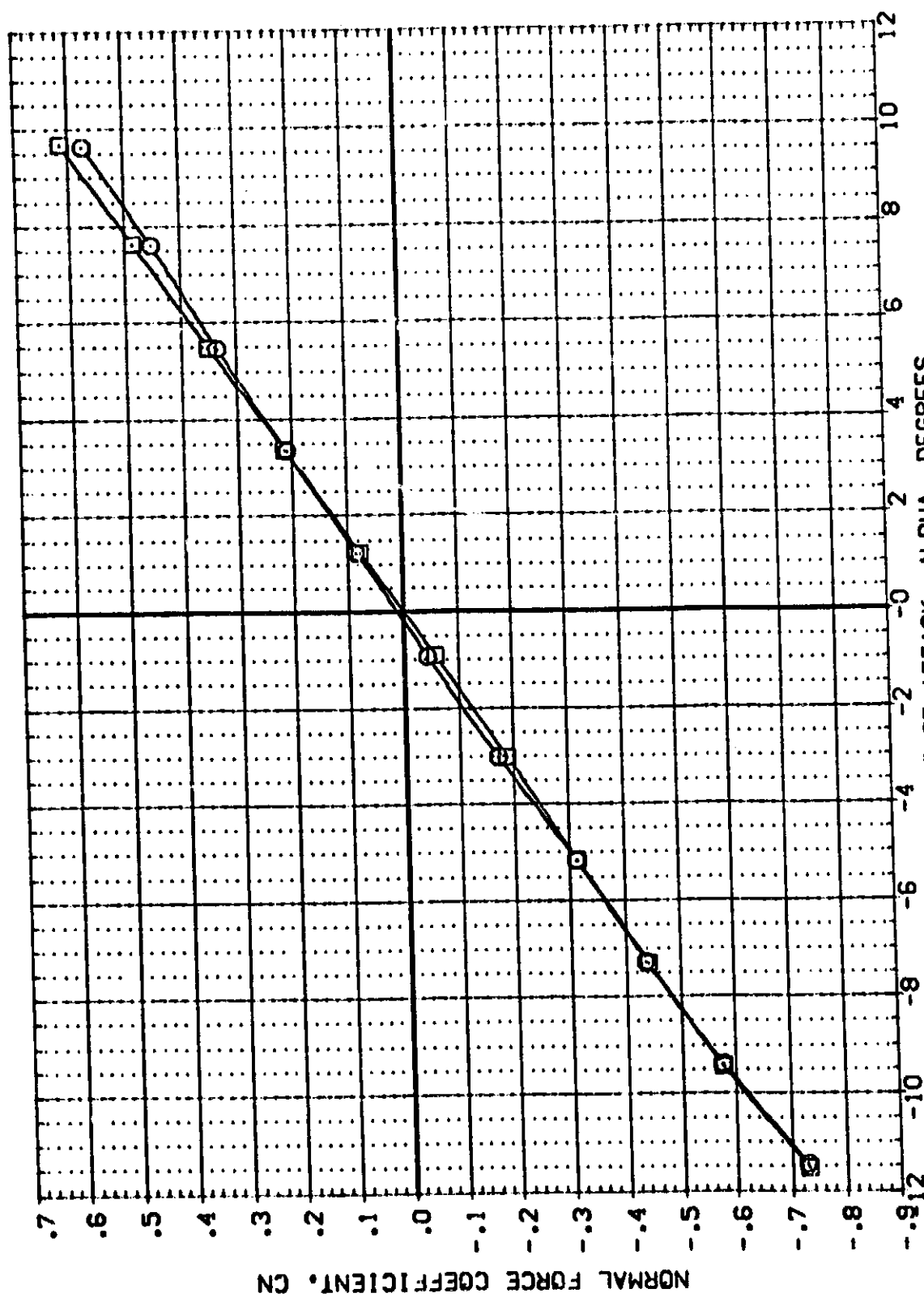
YREF 5.313

XREF 2.549

YREF .000

ZREF .000

SCALE .004

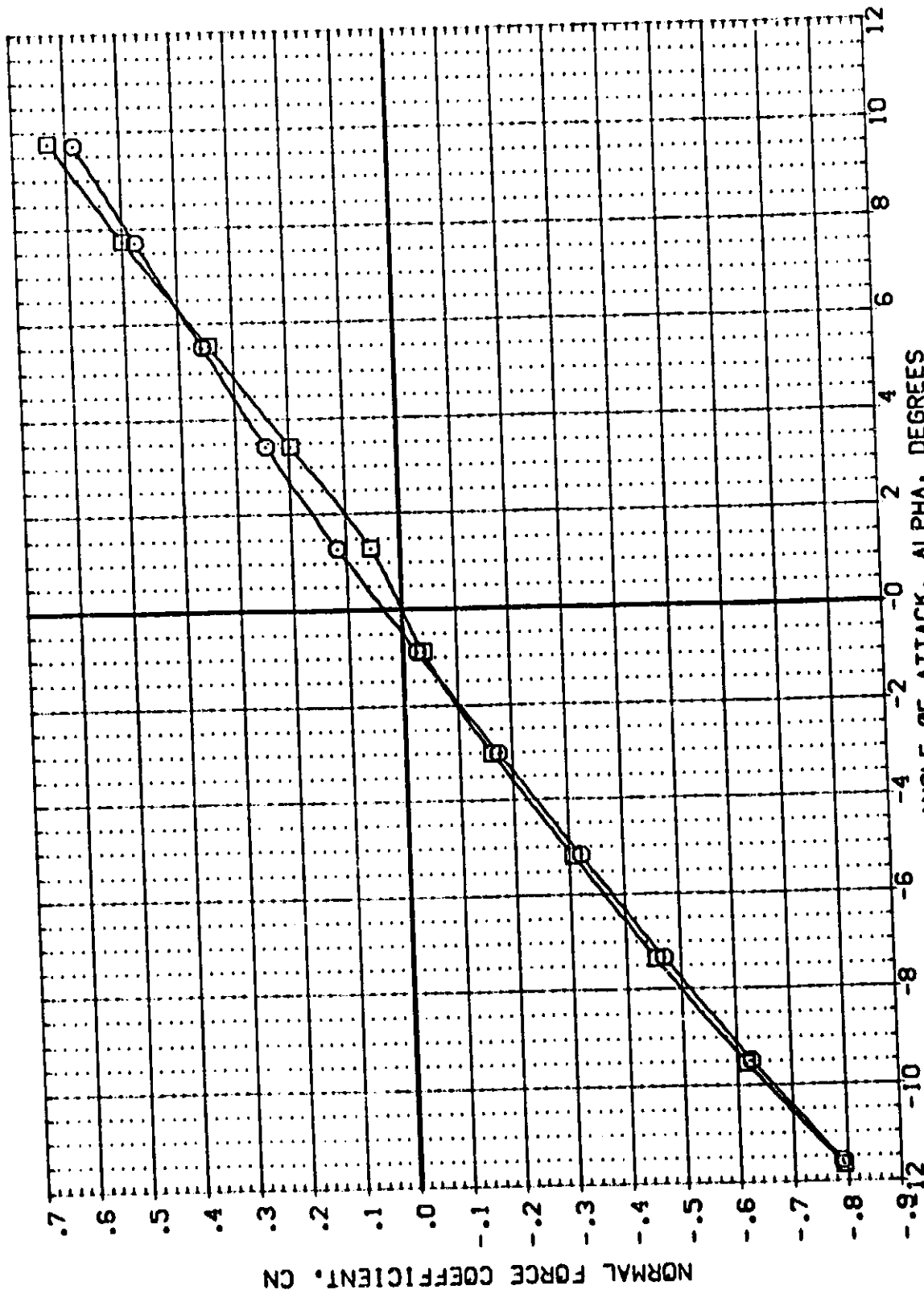


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(M)MACH = 0.91

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1001) MFC 566 (1A3:F) MCR 0074 LV 03 19 S3
 (581009) MFC 566 (1A3:F) MCR 0074 LV 03 19 S3

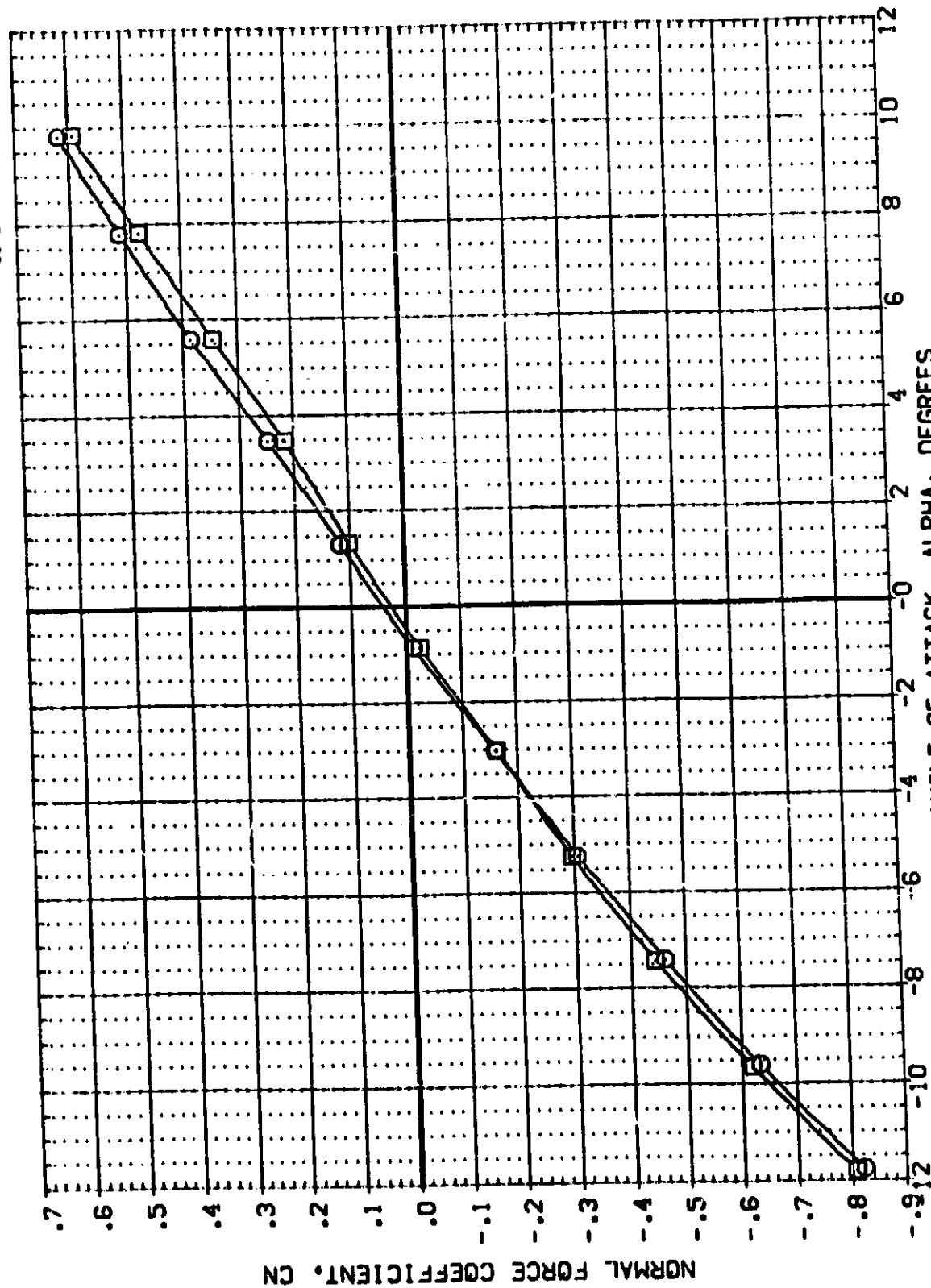
ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ. IN
 .500 .000 .000 SREF 6.198
 .500 .400 .000 LREF 5.313
 .500 .400 .000 BREF 5.313
 .500 .400 .000 XMRP 2.548
 .500 .400 .000 YMRP .000
 .500 .400 .000 ZMRP .000
 .500 .400 .000 SCALE .000



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SC. IN
(DB1001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.199
(DB1002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LREF	5.313
						BREF	5.313
						XMRP	2.543
						YMRP	.000
						ZMRP	.000
						SCALE	.004



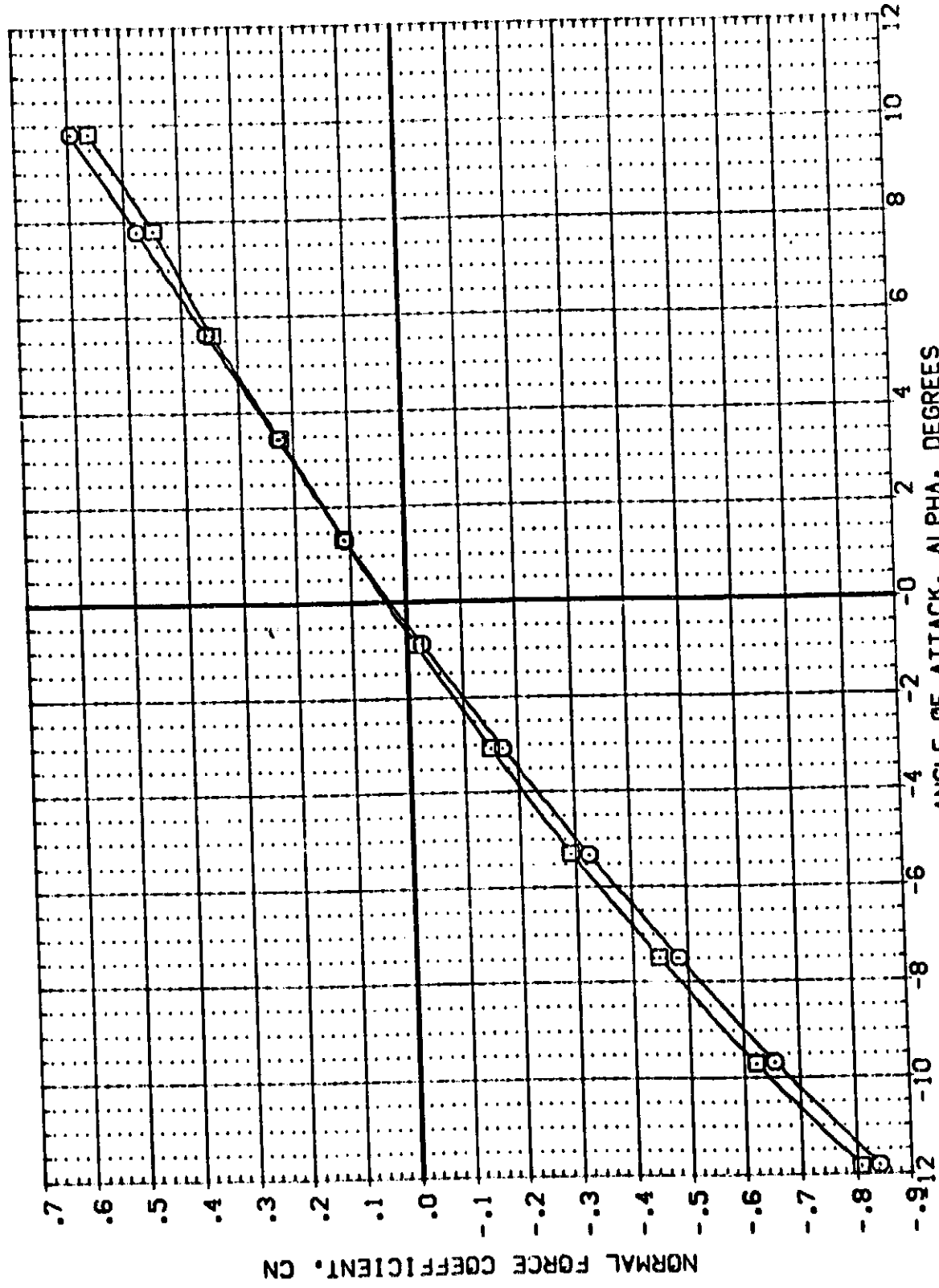
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(0)MACH = 1.25

DATA SET SYMBOL: (081001)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB: .000
 DELTA Z: .136
 RUDDER: .000
 SCALE: .004

REFERENCE INFORMATION:
 SREF: 6.198
 LREF: 5.313
 BREF: 5.313
 XMRP: 2.549
 YMRP: .000
 ZMRP: .000
 SO: IN

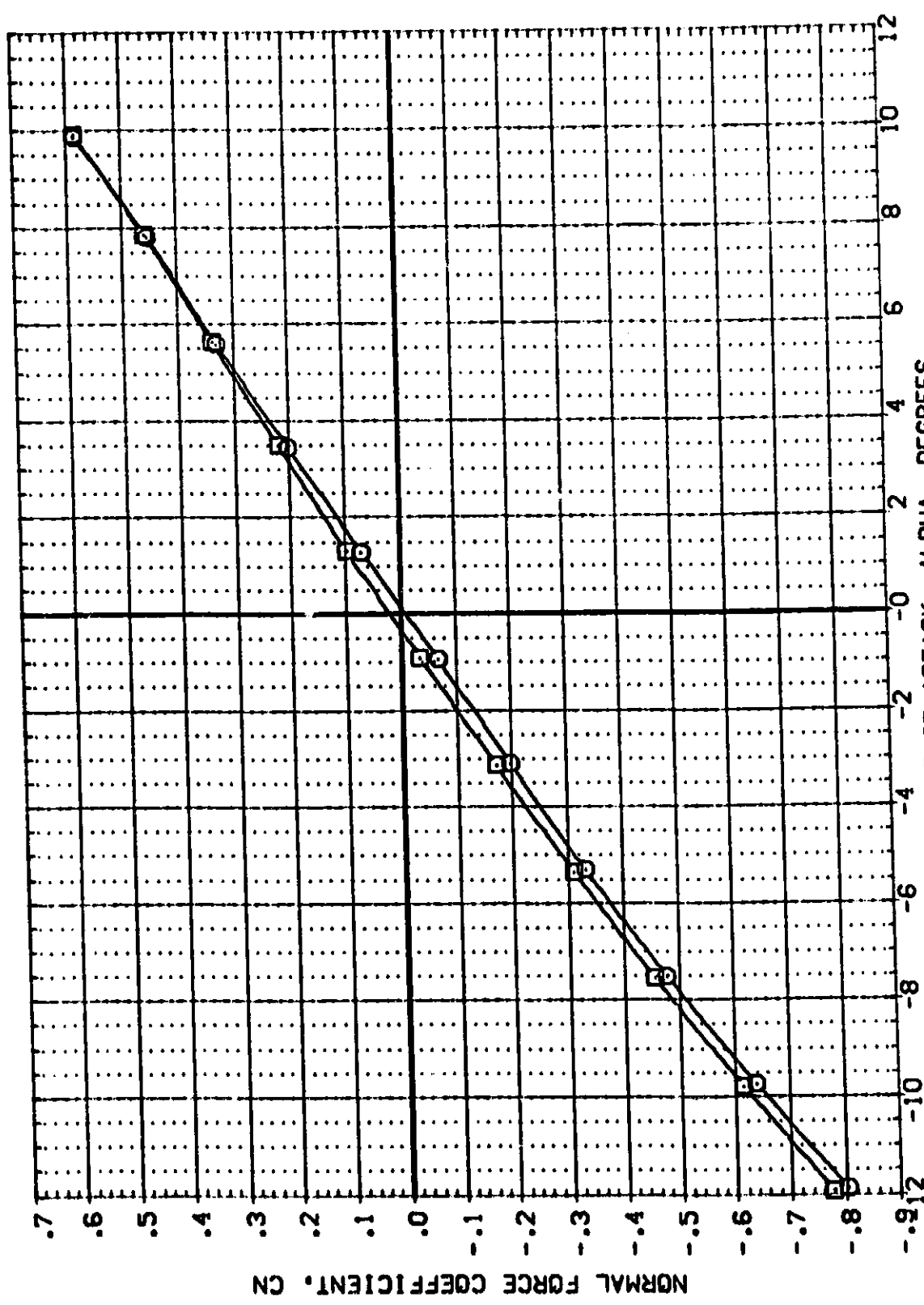


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(E)MACH = 1.45

DATA SET SYMBOL: (081001)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) PER 0074 LV 03 19 S3
 (081005)

ORIGIN: X-SRB: .500
 DELTA Z: .136
 RUDDER: .000
 REFERENCE INFORMATION: SREF: 6.198
 LREF: 5.313
 BREF: 5.313
 XMRP: 2.548
 YMRP: .000
 ZMRP: .000
 SCALE: .004



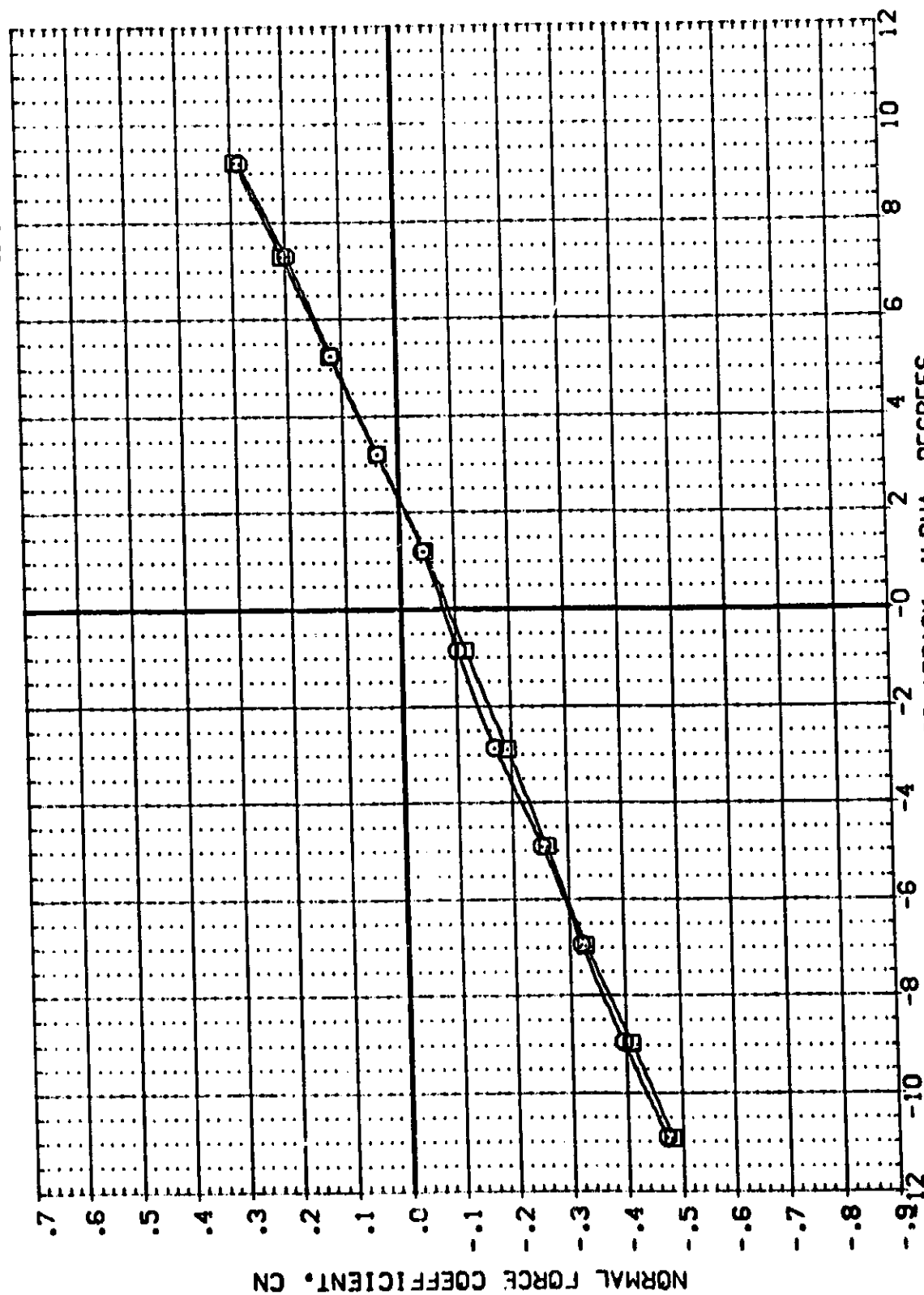
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL: 01001
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBIT: X-SRB .000
 DELTA Z .136
 RUDDER .000
 SCALE .004

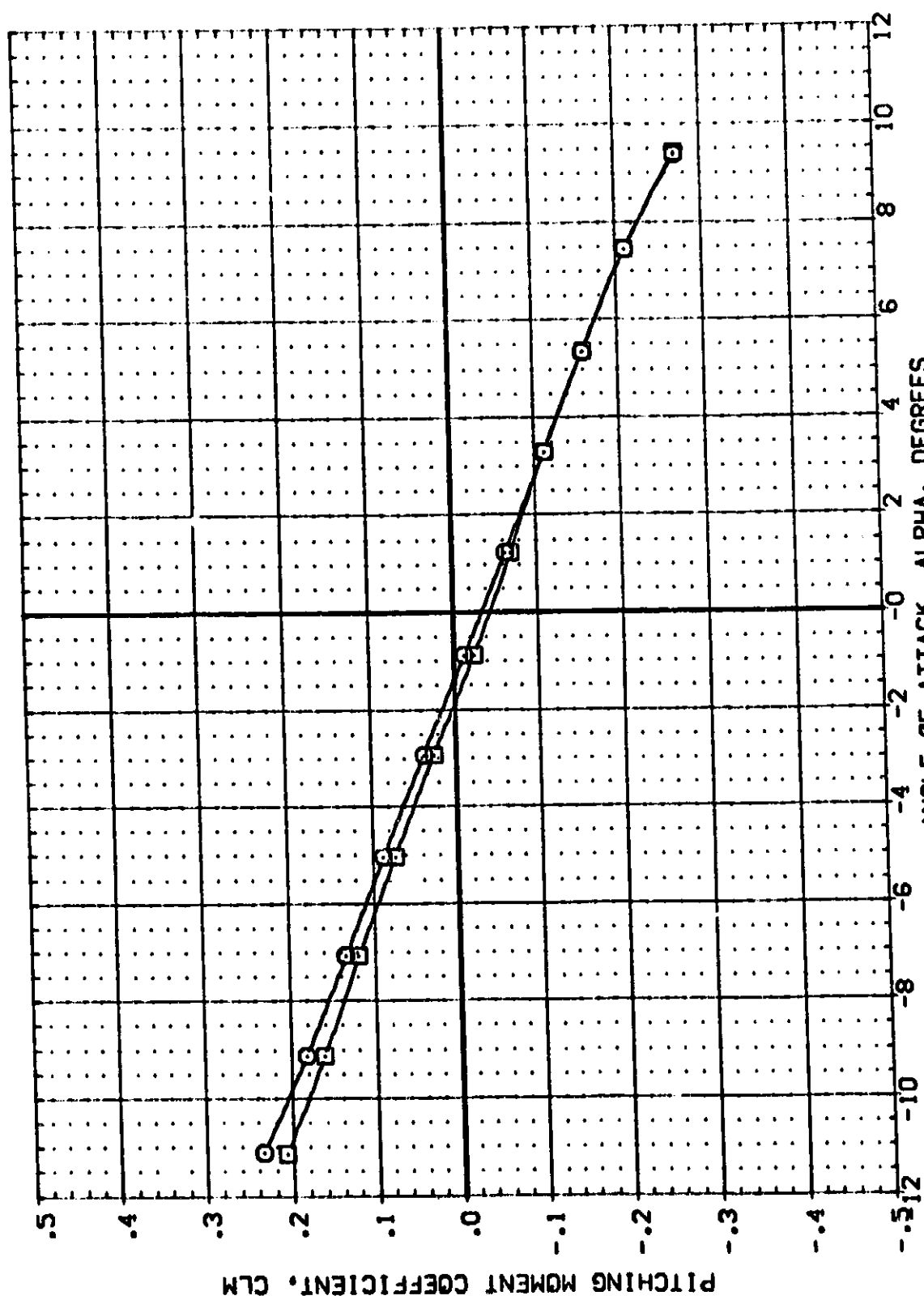
REFERENCE INFORMATION:
 SREF 6.198
 LREF 5.313
 BRFF 5.313
 XMRP 2.546
 YMRP .000
 ZMRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS



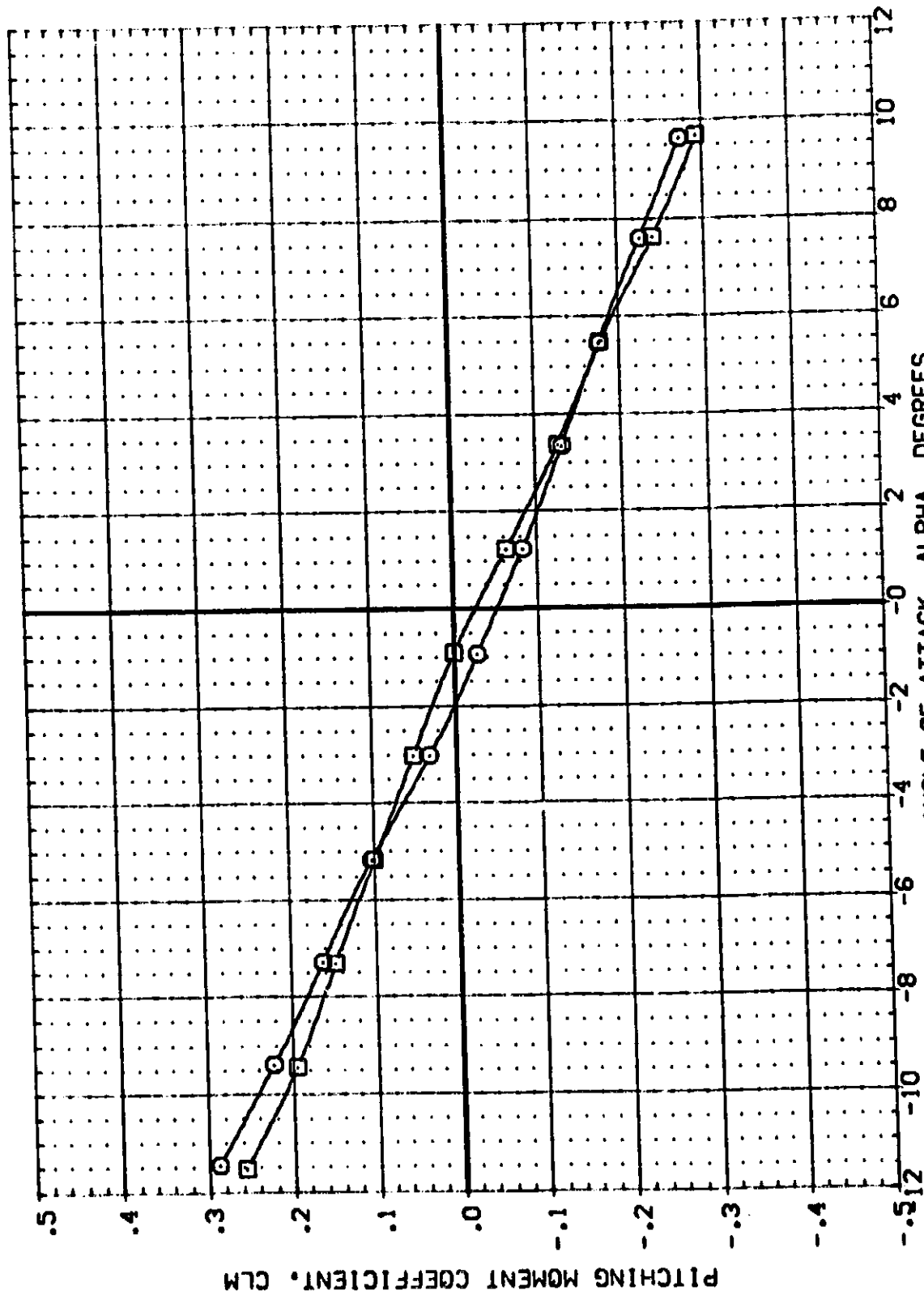
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081009)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LREF 5.313
						BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITING		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3	MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.500	.000	.000	.136	.136	.000	.000	SREF 6.198	SO. IN
MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3			.500	.500	.000	.000	.136	.136	.000	.000	LREF 5.313	IN.
												BREF 5.313	IN.
												X-PRP 2.549	IN.
												Y-PRP .000	IN.
												Z-PRP .000	IN.
												SCALE .004	

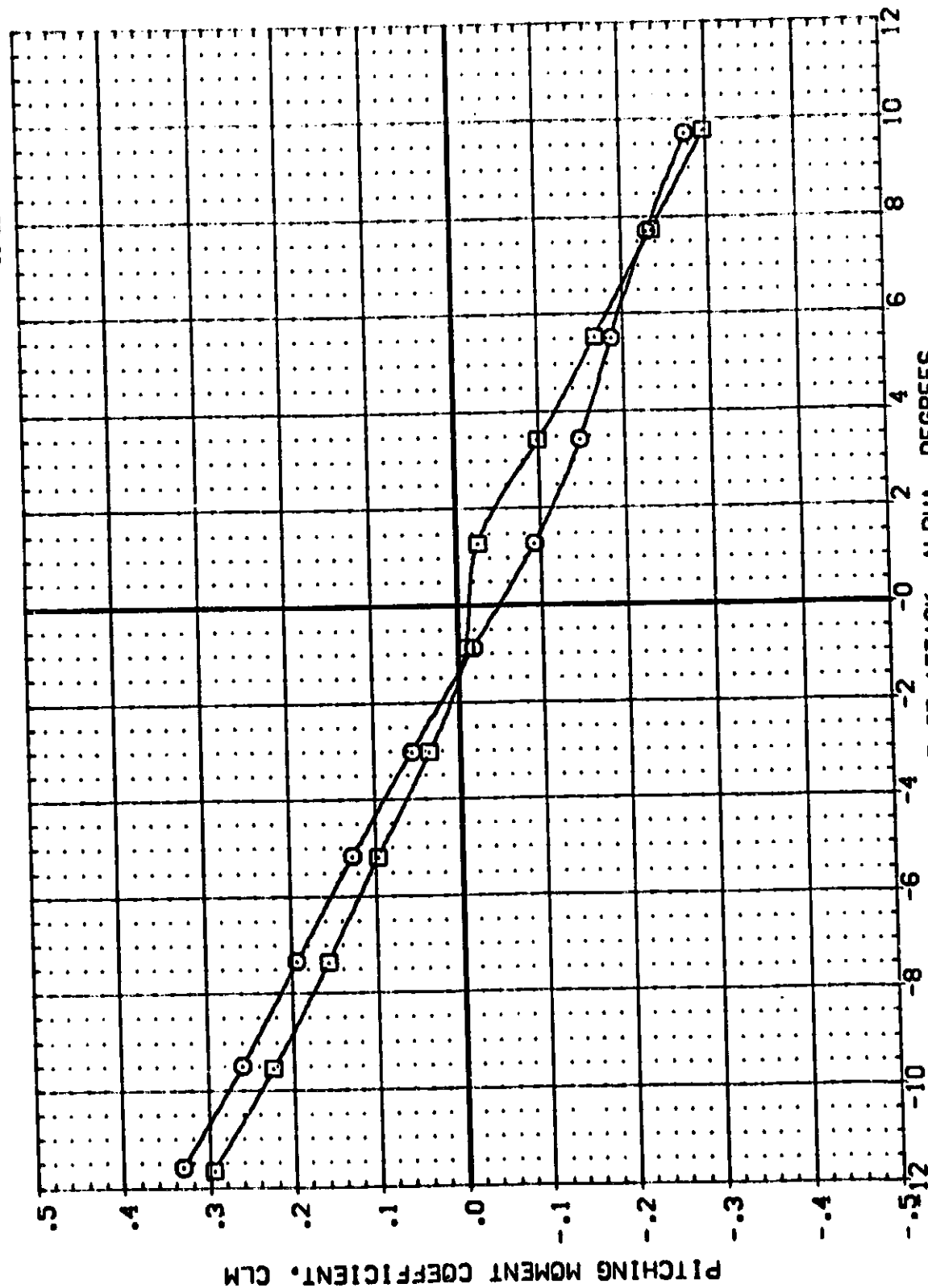


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(B)MACH = 0.91

DATA SET SYMBOL: (081001) (081003)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ. IN
 .500 .000 .136 .000 SREF 6.199
 .500 .400 .136 .000 LREF 5.313
 .000 .000 .000 .000 XREF 5.313
 .000 .000 .000 .000 YREF 2.548
 .000 .000 .000 .000 ZREF .000
 .000 .000 .000 .000 SCALE .001



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

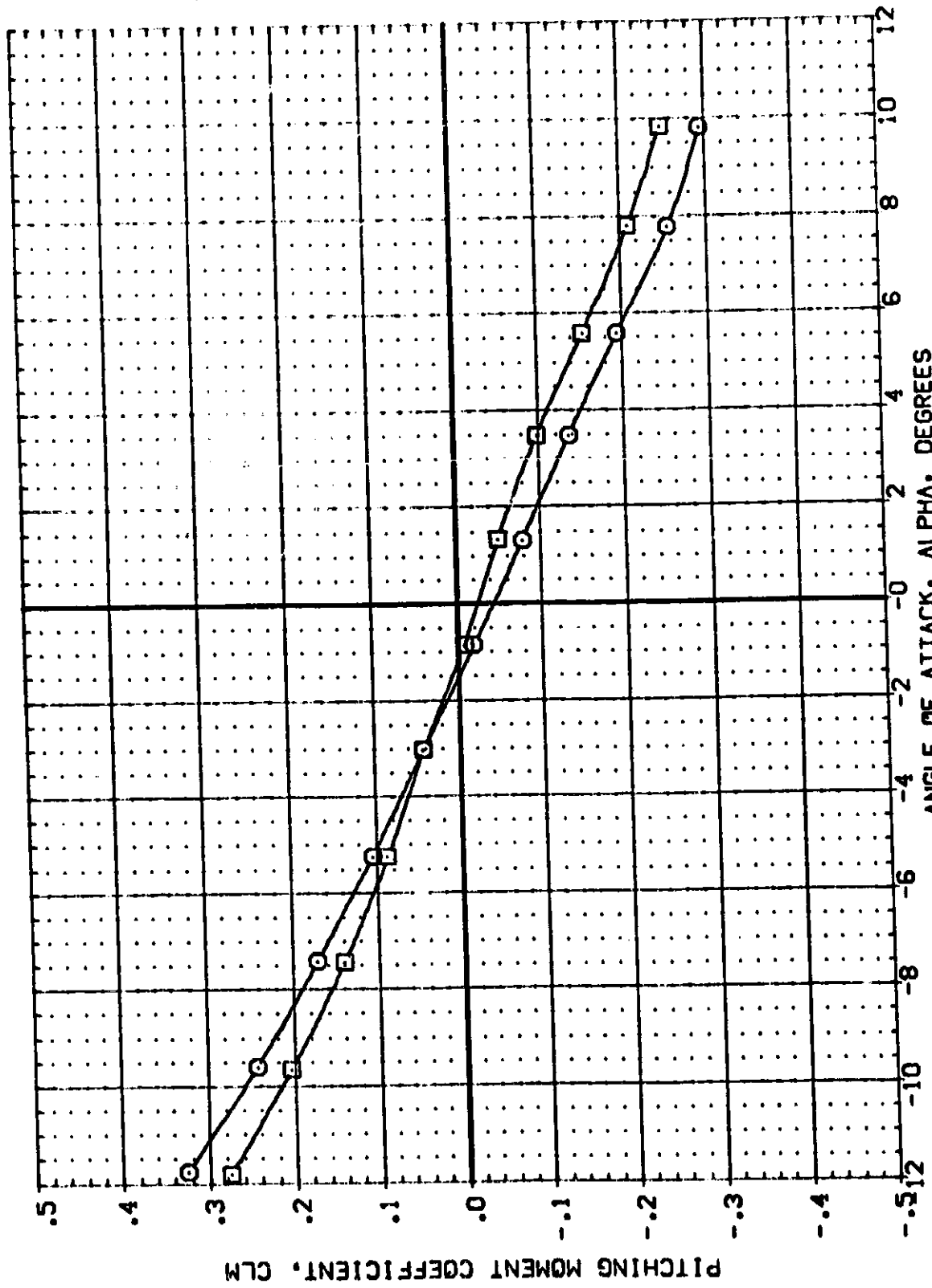
DATA SET SYMBOL: (081001)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBIT: X-SRB .000
 .500
 .500

DELTA Z: .136
 .136

RUDER: .000
 .000

REFERENCE INFORMATION: SS: IN
 SREF: 6.199
 XREF: 5.313
 YREF: 5.313
 XMRP: 2.545
 YMRP: .000
 ZMRP: .000
 SCALE: .001

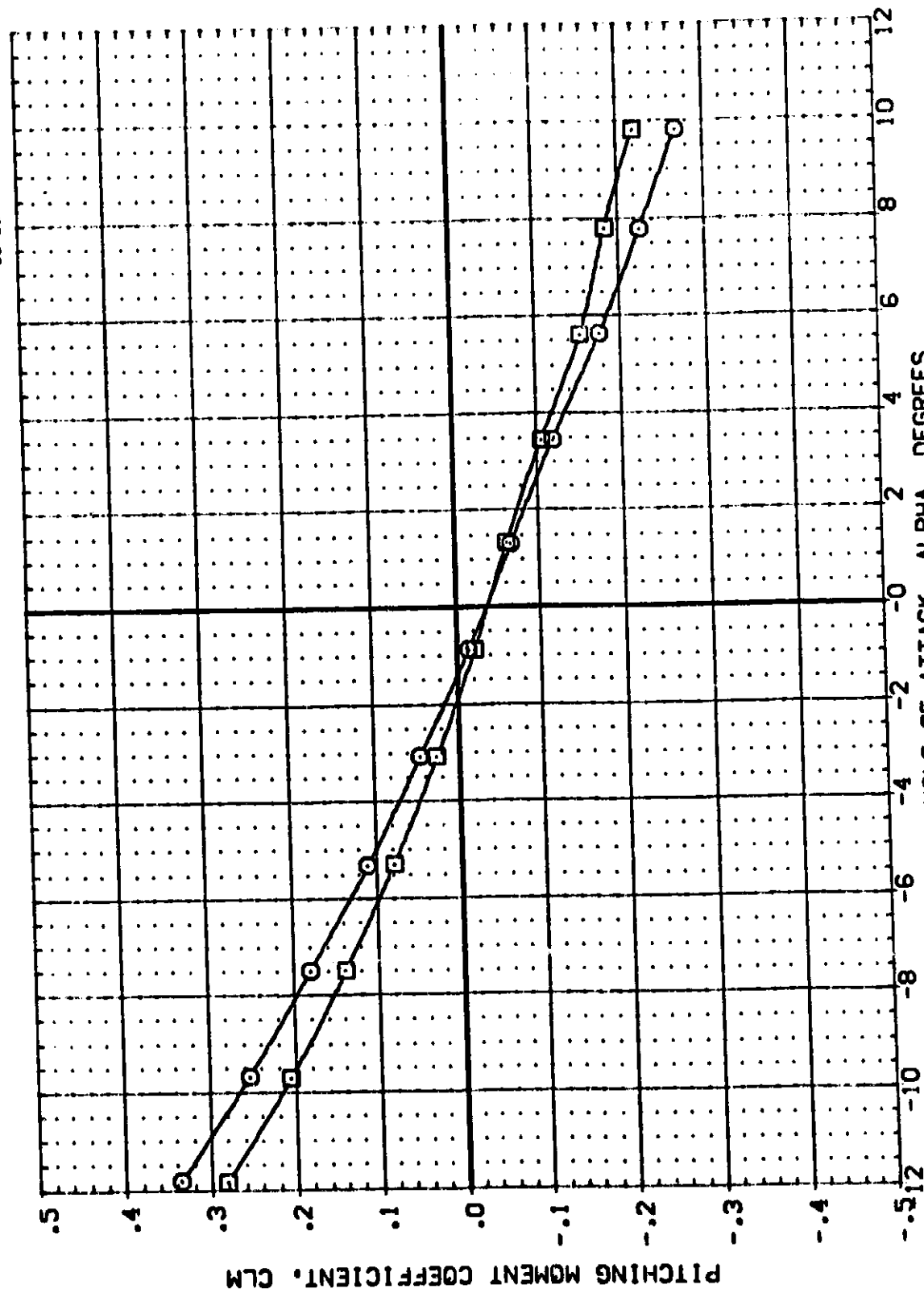


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(0)MACH = 1.25



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081008)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.400	.136	.000	LREF 5.313
						BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

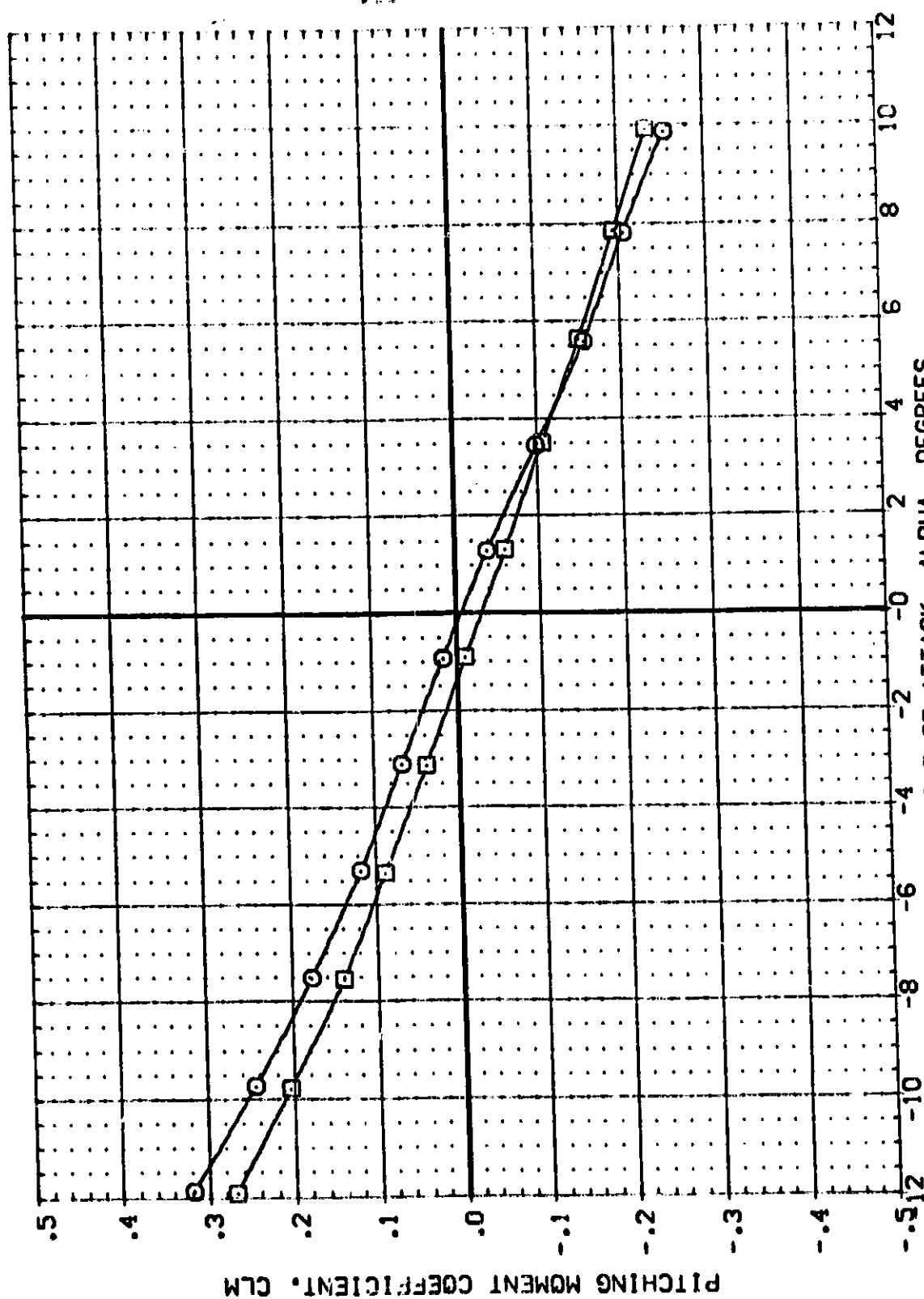
(EDMACH = 1.45

DATA SET SYMBOL CONFIGURATION DESCRIPTION

MSFC 566 (1A31F) MCR 0074 LV 33 19 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z R-ORDER REFERENCE INFORMATION

REF 6.198 SD. IN
 REF 5.313 IN.
 REF 5.313 IN.
 X-REF 2.548 IN.
 Y-REF .000 IN.
 Z-REF .000 IN.
 SCALE .004



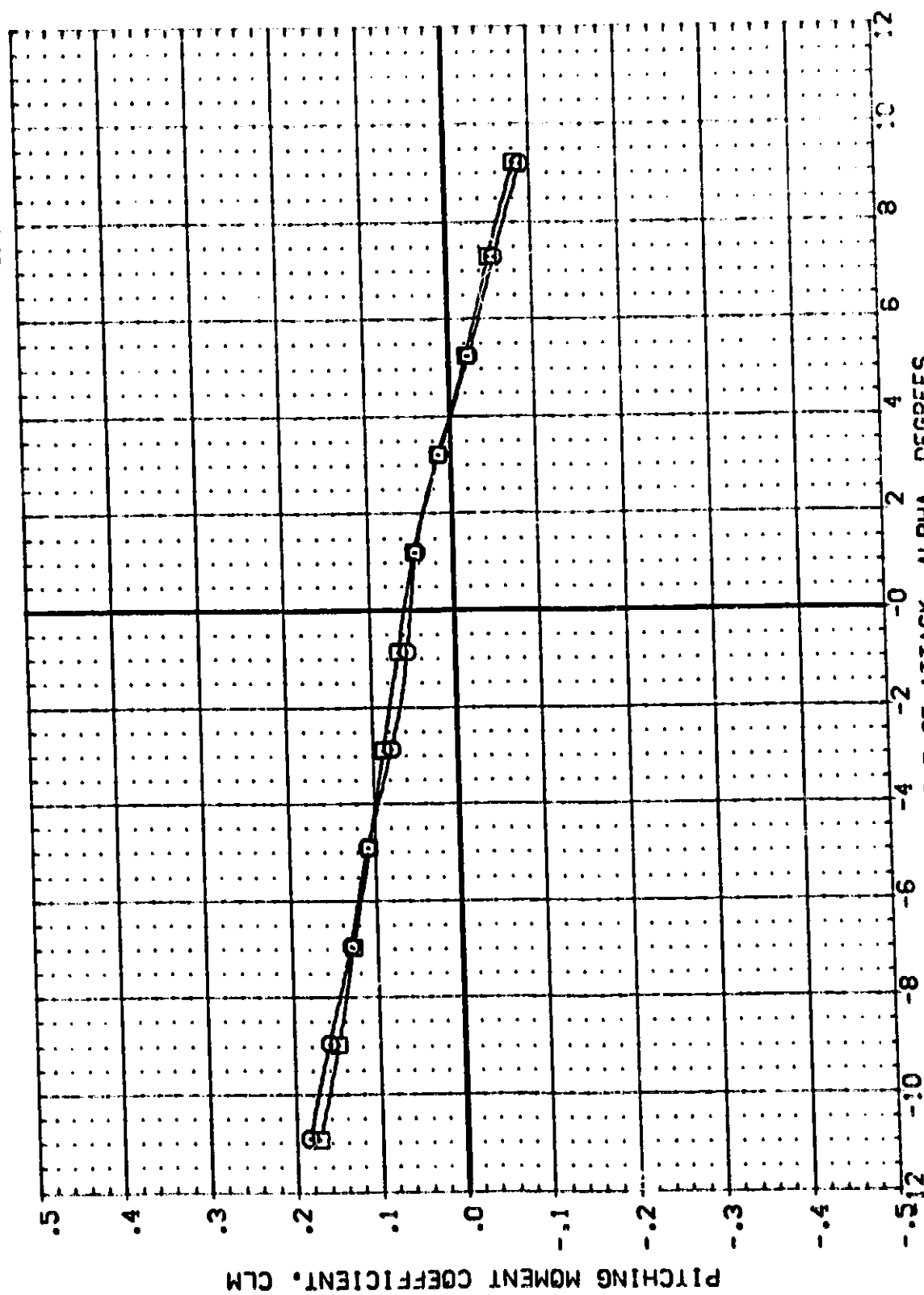
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(M)MACH = 1.96



DATA SET SYMBOL: (081001)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (081009) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 8.198
 .500 .000 .000 LBREF 5.313
 .000 .000 .000 BRREF 5.313
 .000 .000 .000 XMRP 2.549
 .000 .000 .000 YMRP .000
 .000 .000 .000 ZMRP .000
 .000 .000 .000 SCALE .004



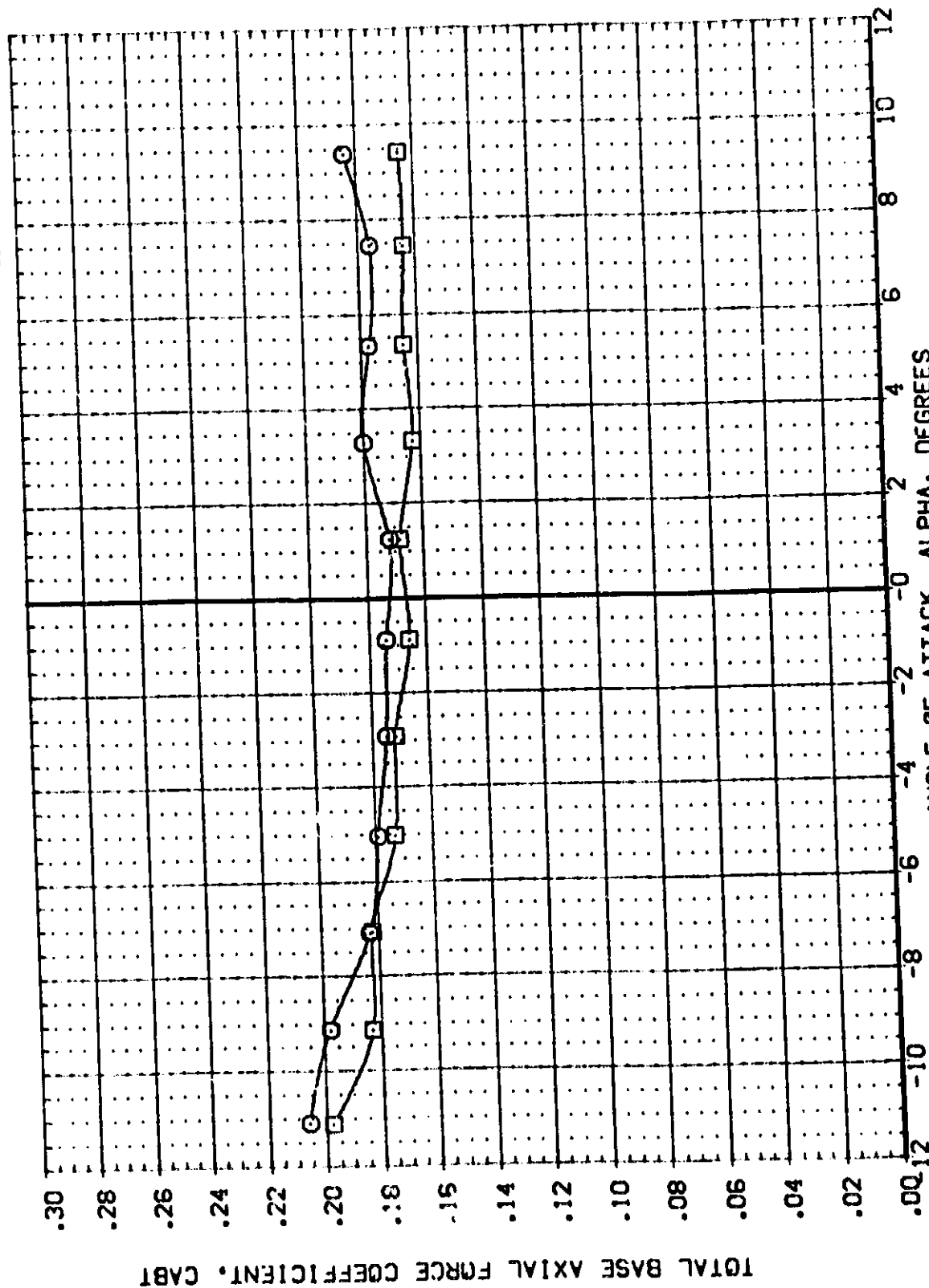
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(G)MAD = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

[08:00:1] [08:00:2] MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3 MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3

SR 6.198
LREF 5.313
SR 5.313
X-PRP 2.546
Y-PRP .000
Z-PRP .000
SCALE .004



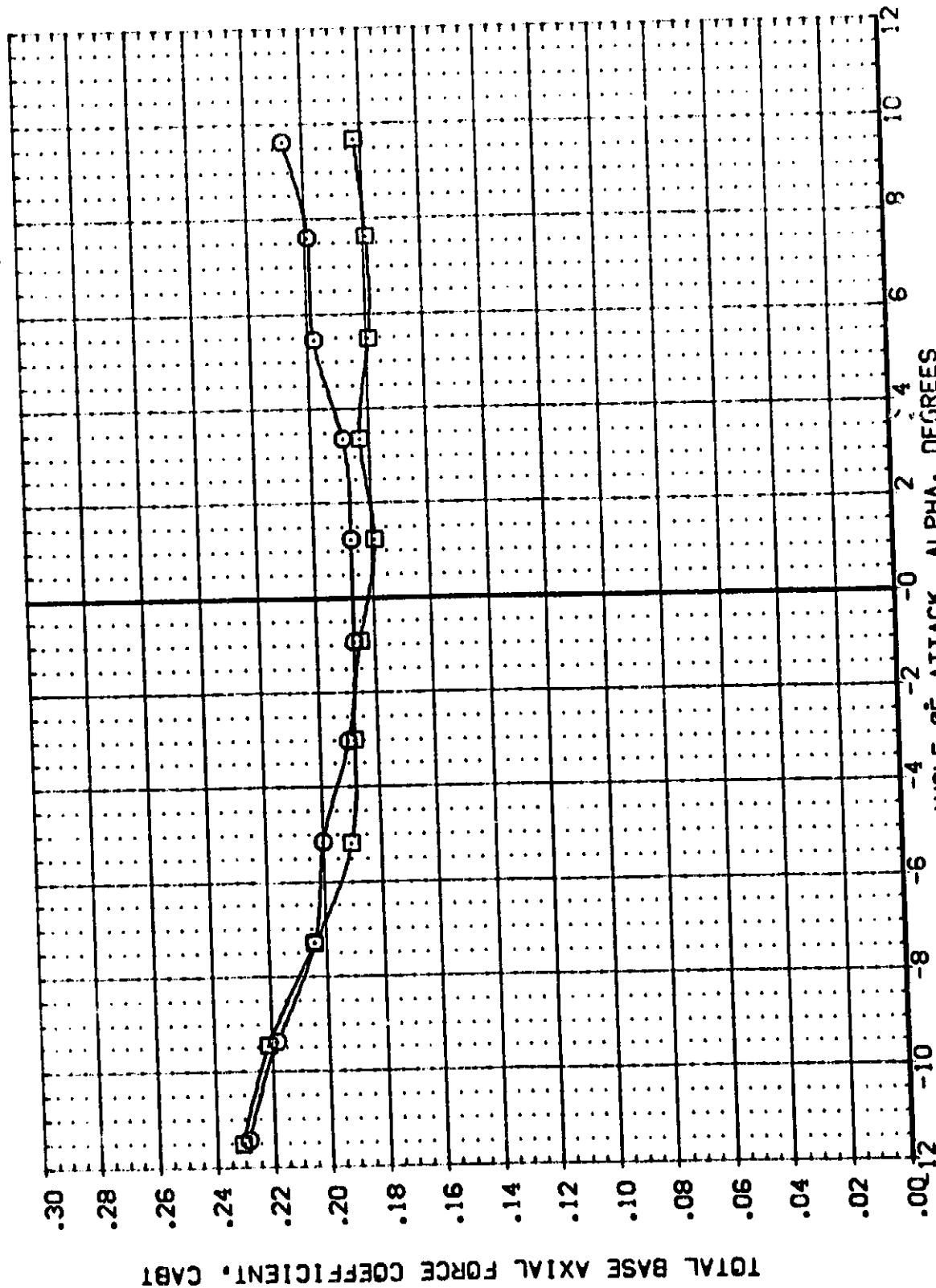
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(M)MACH = 0.60



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (281001) MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 (281009) MSC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198
 .500 .136 .000 LREF 5.313
 .500 .136 .000 BREF 5.313
 .500 .000 .000 XMRP 2.549
 .500 .000 .000 YMRP .000
 .500 .000 .000 ZMRP .000
 .500 .000 .000 SCALE .004



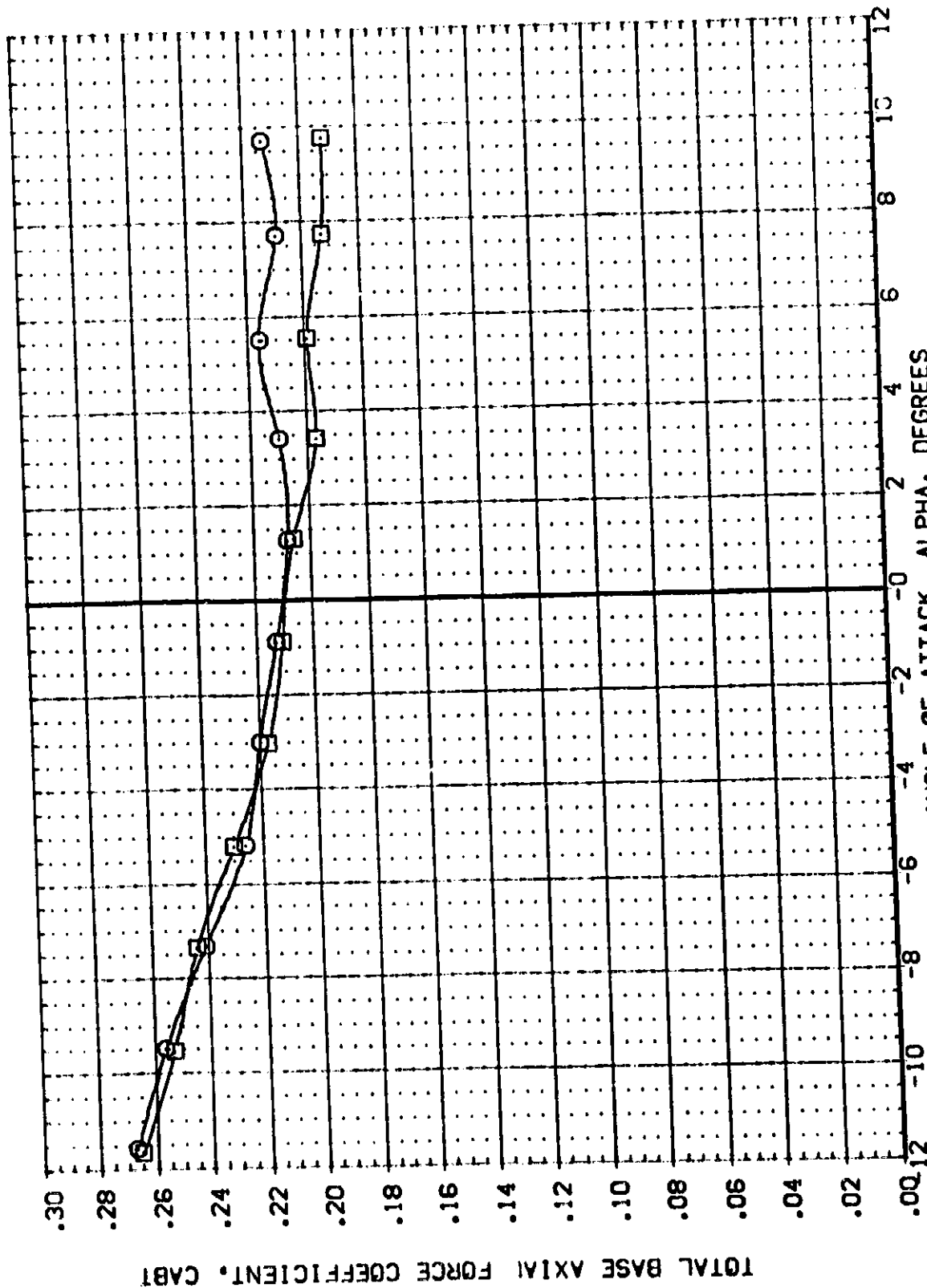
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(3)MACH = 0.91

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 :28:001: Q MFC 566 (1A31F) MCR 0074 LV 03 19 S3
 :28:002: Q MFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRS DELTA Z RUDDER
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XVRP 2.548
 YVRP .000
 ZVRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(MACH = 1.05

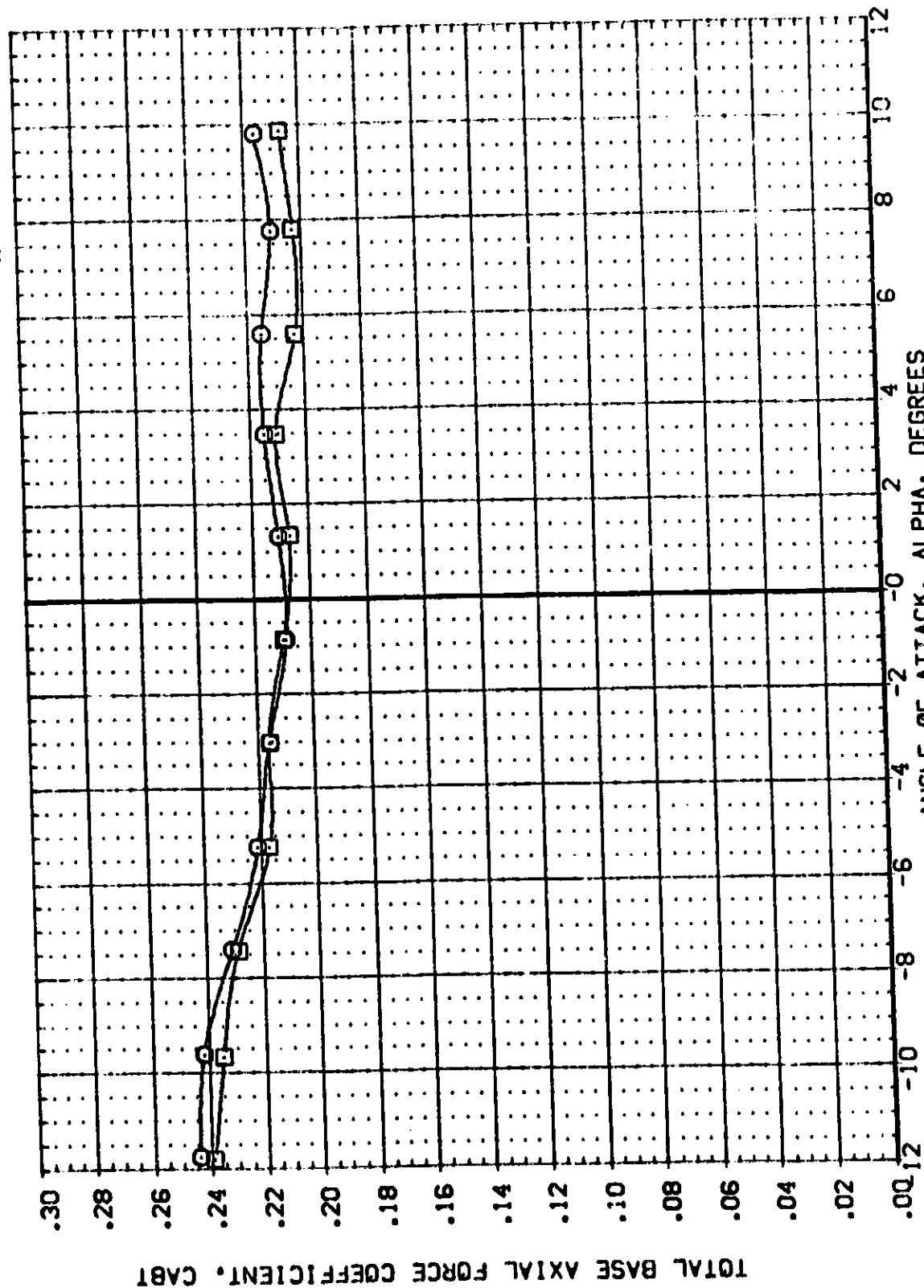


DATA SET SYMBOL: (281001) (281002) (281003)

CONFIGURATION DESCRIPTION: M5FC 566 (1A31F) MCR 0074 LV 03 T9 S3
M5FC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ. IN.

ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SQ. IN.
.500	.000	.126	.000	SREF	6.198
.500	.400	.136	.000	LREF	5.313
				BREF	5.313
				X-MRP	2.549
				Y-MRP	.000
				Z-MRP	.000
				SCALE	.004



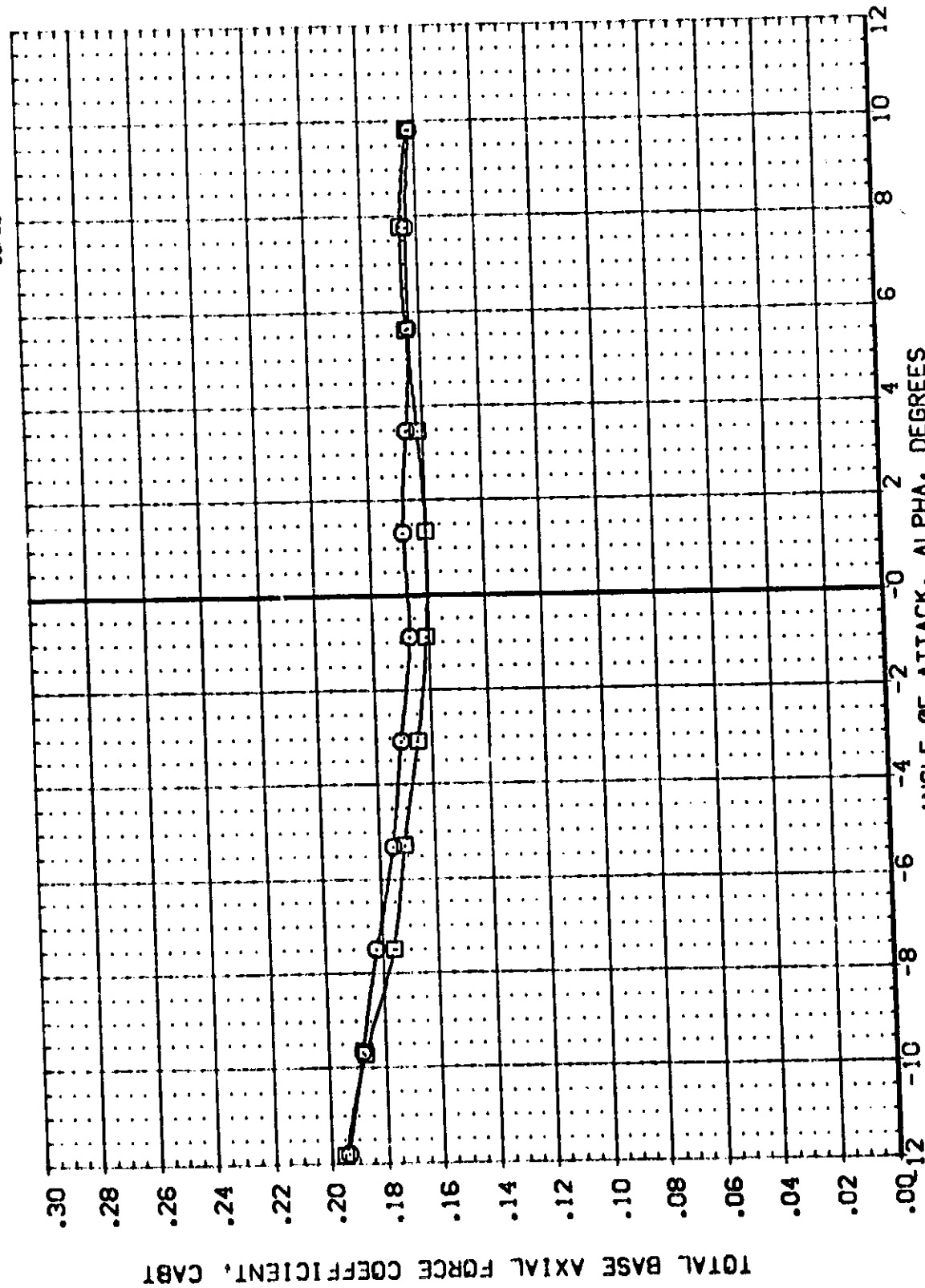
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

CDMACH = 1.25

DATA SET SYMBOL: 01
 CONFIGURATION DESCRIPTION: MSFC 566 (A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (A31F) MCR 0074 LV 03 T9 S3

CRBINC X-SRB DELTAZ RUDDER
 .500 .000 .136 .000
 .500 .400 .136 .000

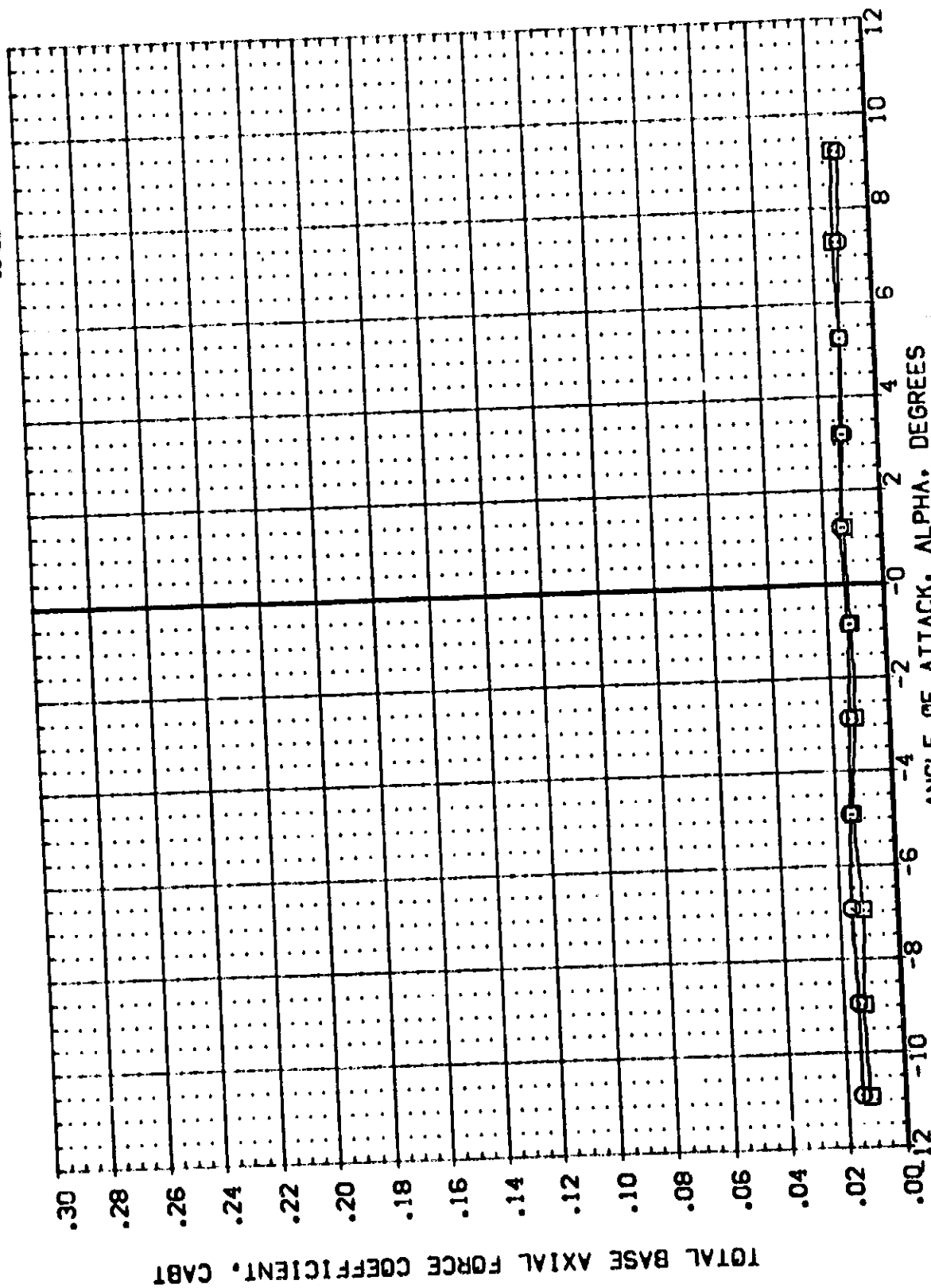
REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 X-PRP 2.548
 Y-PRP .000
 Z-PRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(E)MACH = 1.45

	ORIGIN	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION IN
	.500	.000	.136	.000	SF 6.198
	.500	.400	.136	.000	LRF 5.313
					BREF 5.313
					XPRP 2.000
					YPRP .000
					ZPRP .000
					SCALE .004



ANGLE OF ATTACK, ALPHA, DEGREE

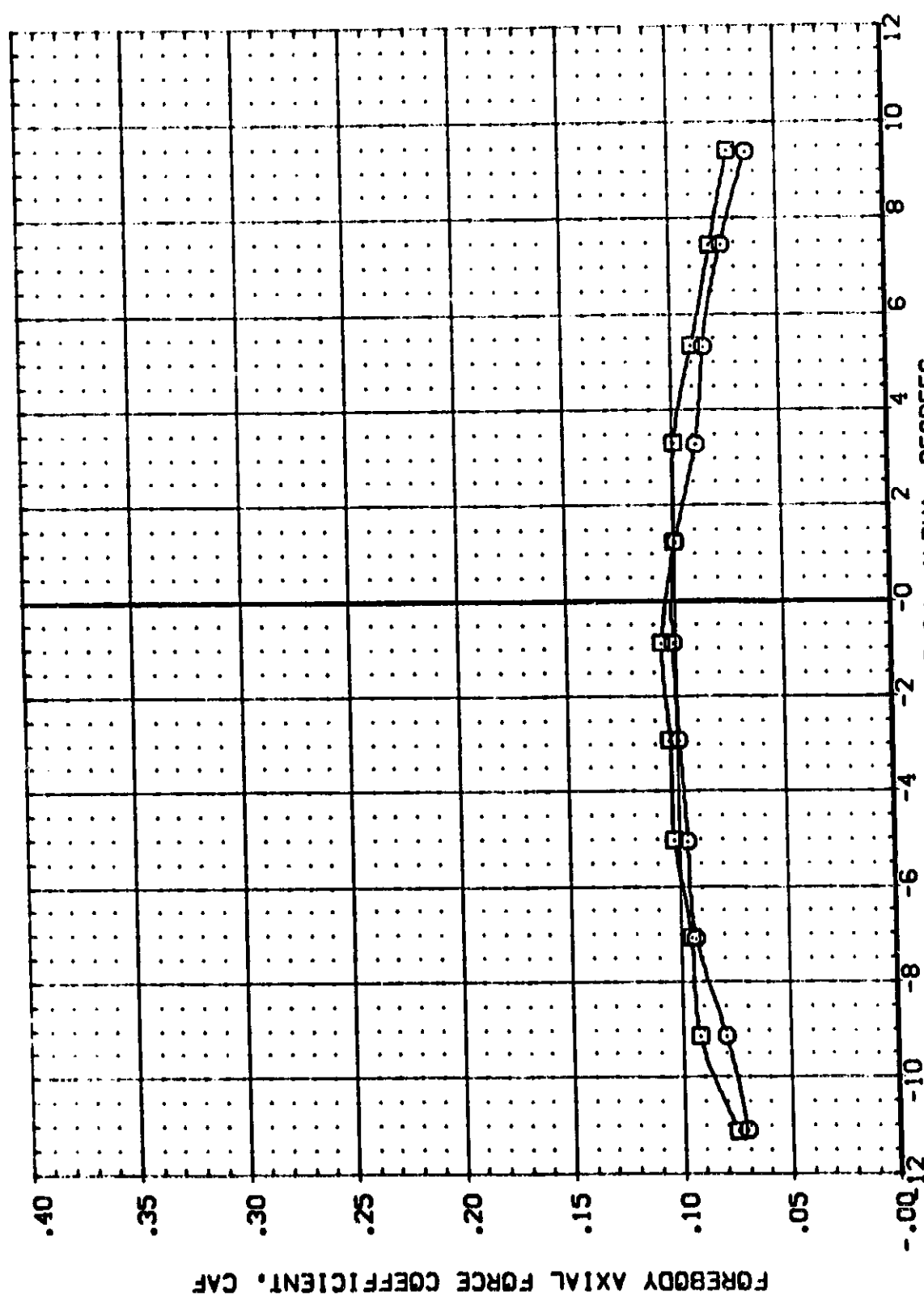
PAGE 130

EFFECT OF LONGITUDINAL MACH = 4.96

DATA SET 5000L CONFIGURATION DESCRIPTION
 MSFC 566 (1A31F) MCR 0074 LV 03 TS S3
 MSFC 566 (1A31F) MCR 0074 LV 03 TS S3

ORBITAL X-508 DELTA Z RUDDER
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SREF 5.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004

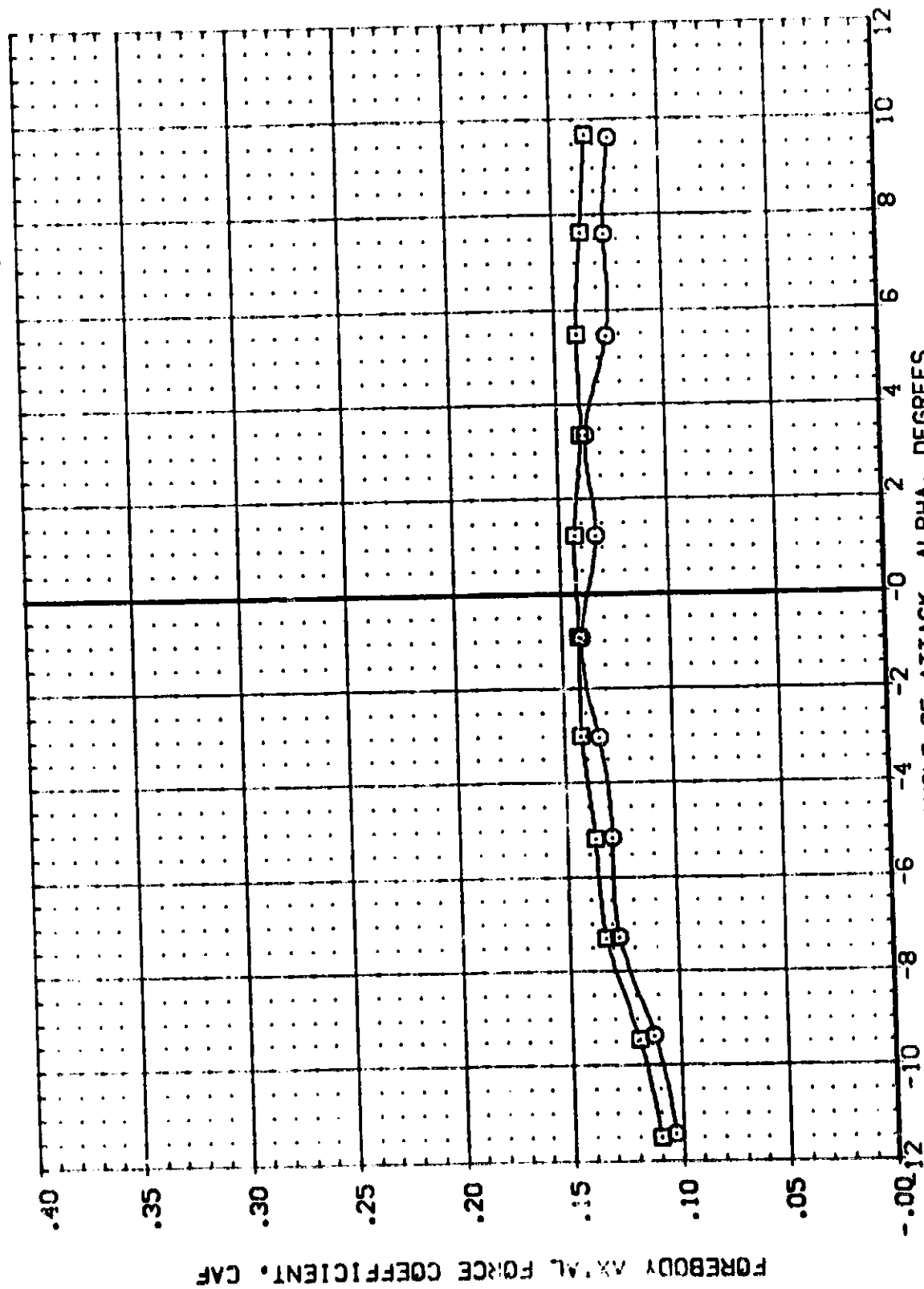


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(M)MACH = 0.60

DATA SET SYMBOL: Q
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (DB1009) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198
 .500 .400 .000 LREF 5.313
 .000 .000 .000 BRPF 2.549
 .000 .000 .000 XMRP .000
 .000 .000 .000 ZMRP .000
 .000 .000 .000 SCALE .004

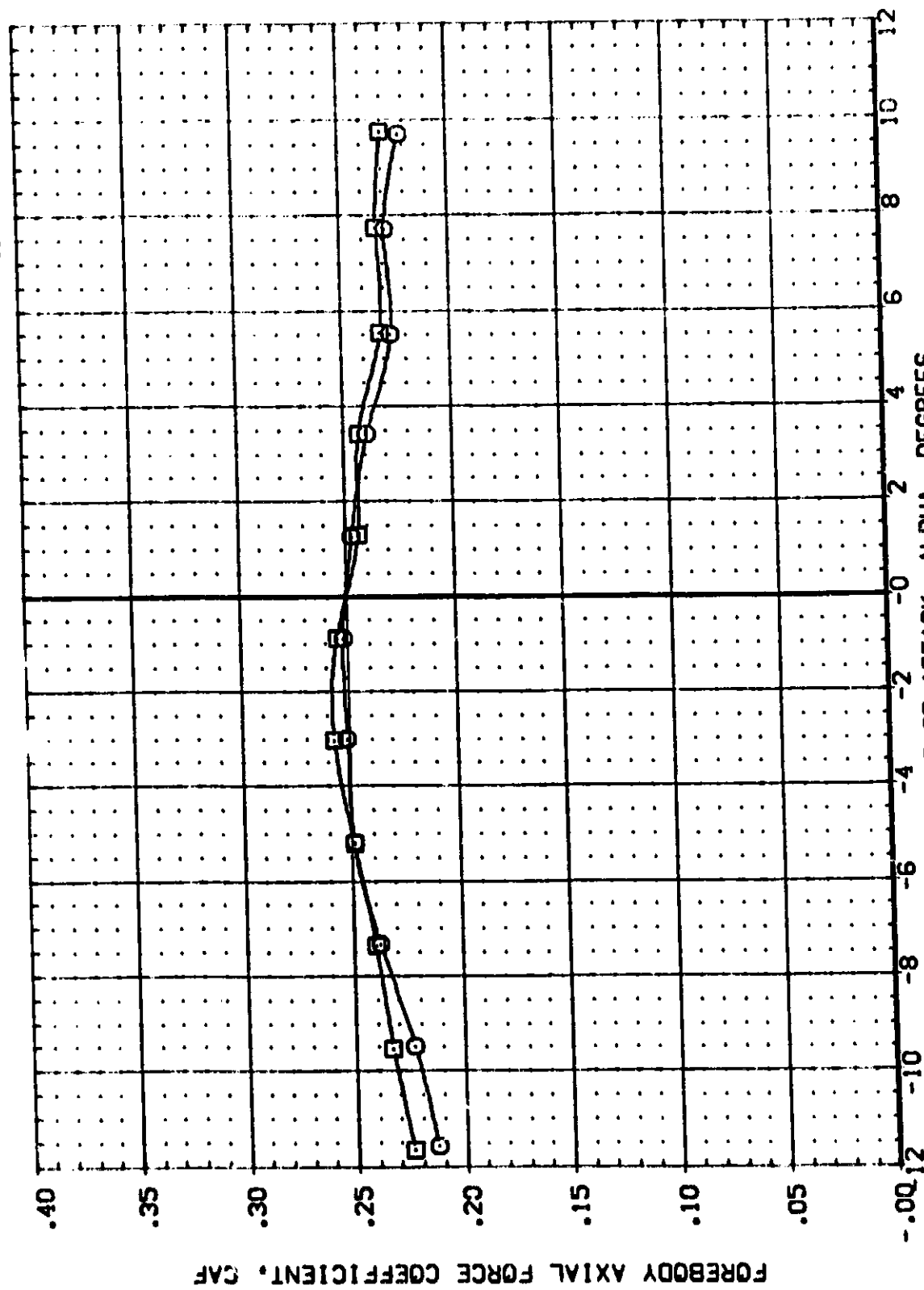


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(MACH = 0.91)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(091001)	W57C 566 (1A31F) FOR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081009)	W57C 566 (1A31F) FOR 0074 LV 03 19 S3	.500	.400	.136	.000	LREF 5.313
						BREF 5.313
						XMRP 2.545
						YMRP .000
						ZMRP .000
						SCALE .004

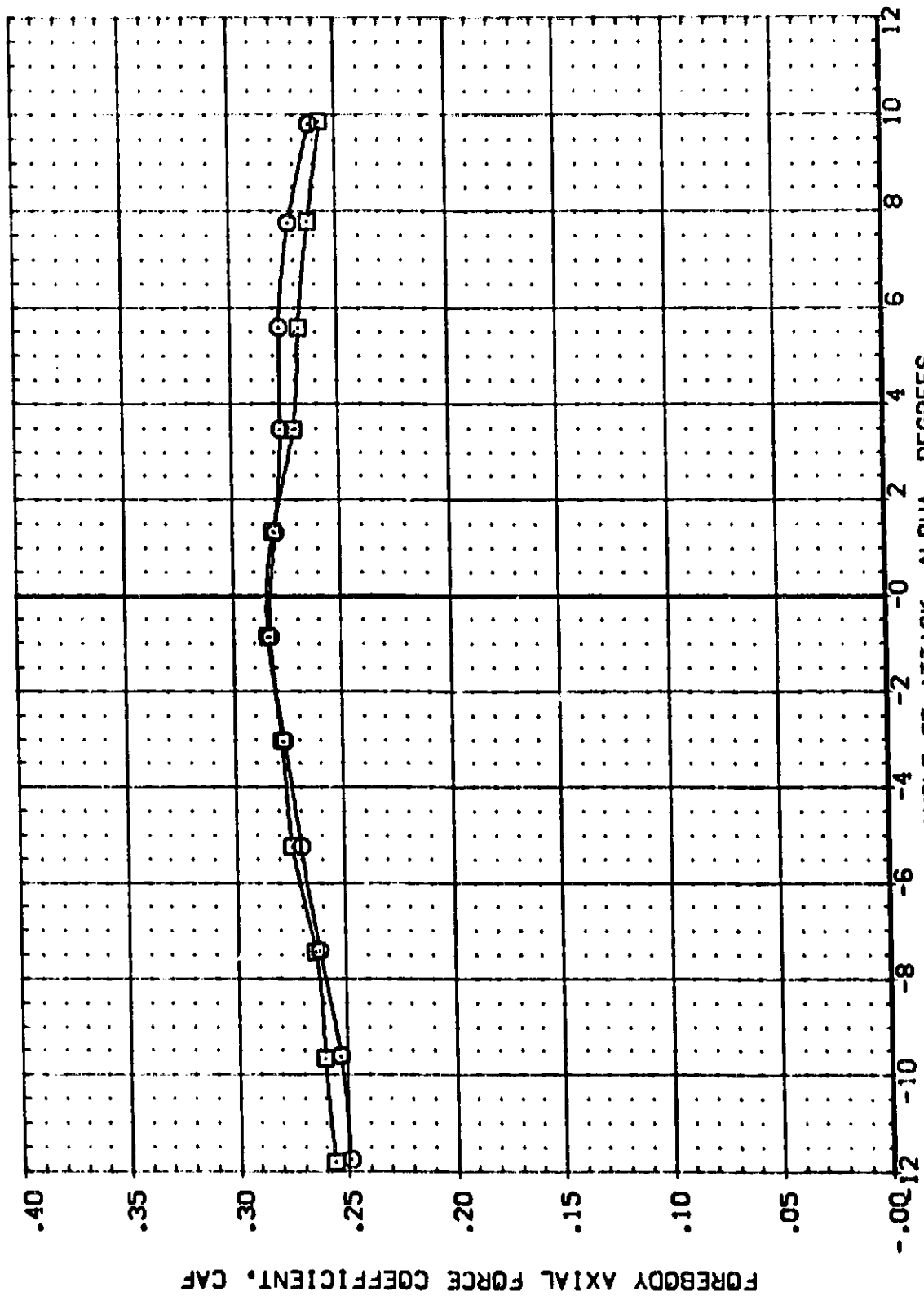


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1001) Q MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (DB1009) □ MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198 SQ. IN
 .500 .400 .000 LREF 5.313 IN.
 XREF 5.313 IN.
 YREF 2.548 IN.
 ZREF .000 IN.
 SCALE .004



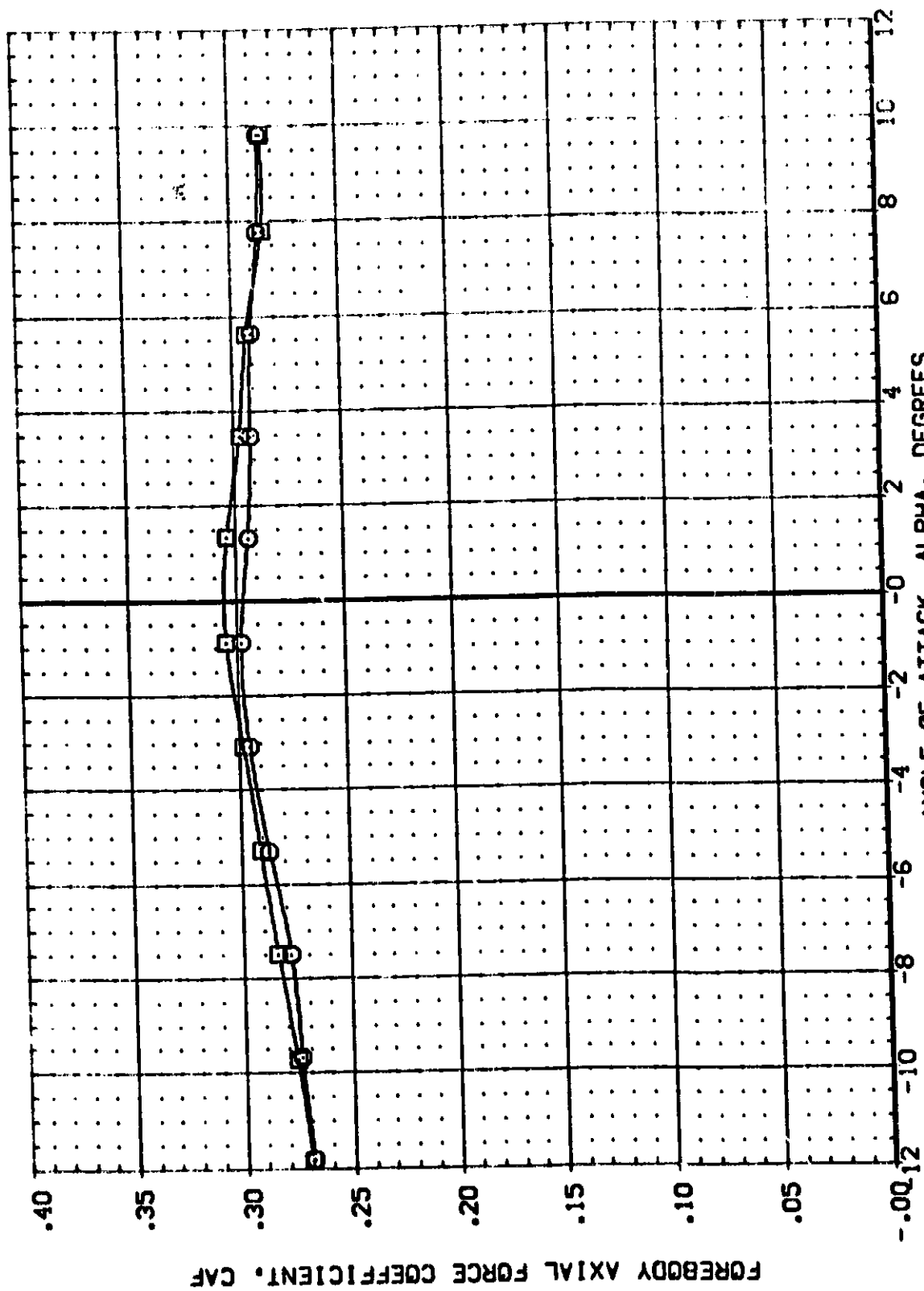
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(DB)MACH = 1.25



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (381001) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (381009) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-REF DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198 SD. IN
 .500 .000 .000 LREF 5.313
 .500 .000 .000 BREF 5.313
 .500 .000 .000 XREF 2.548
 .500 .000 .000 YREF .000
 .500 .000 .000 ZREF .000
 .500 .000 .000 SCALE .001



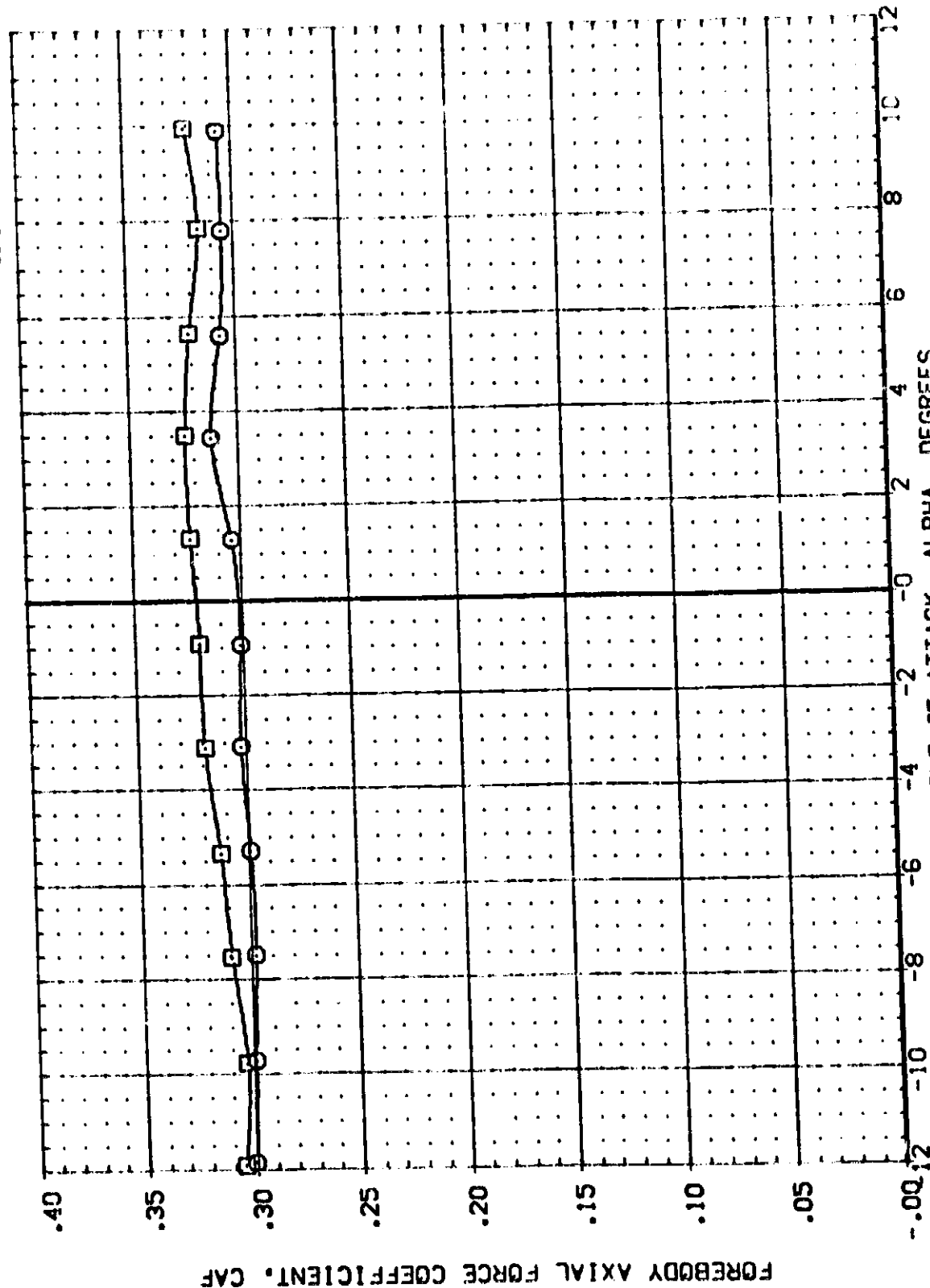
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(MACH = 1.45

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 [08:00:] [] MSFC 566 [1A31F] MCR 0074 LV 03 19 S3
 [08:00:] [] MSFC 566 [1A31F] MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000
 .500 .000

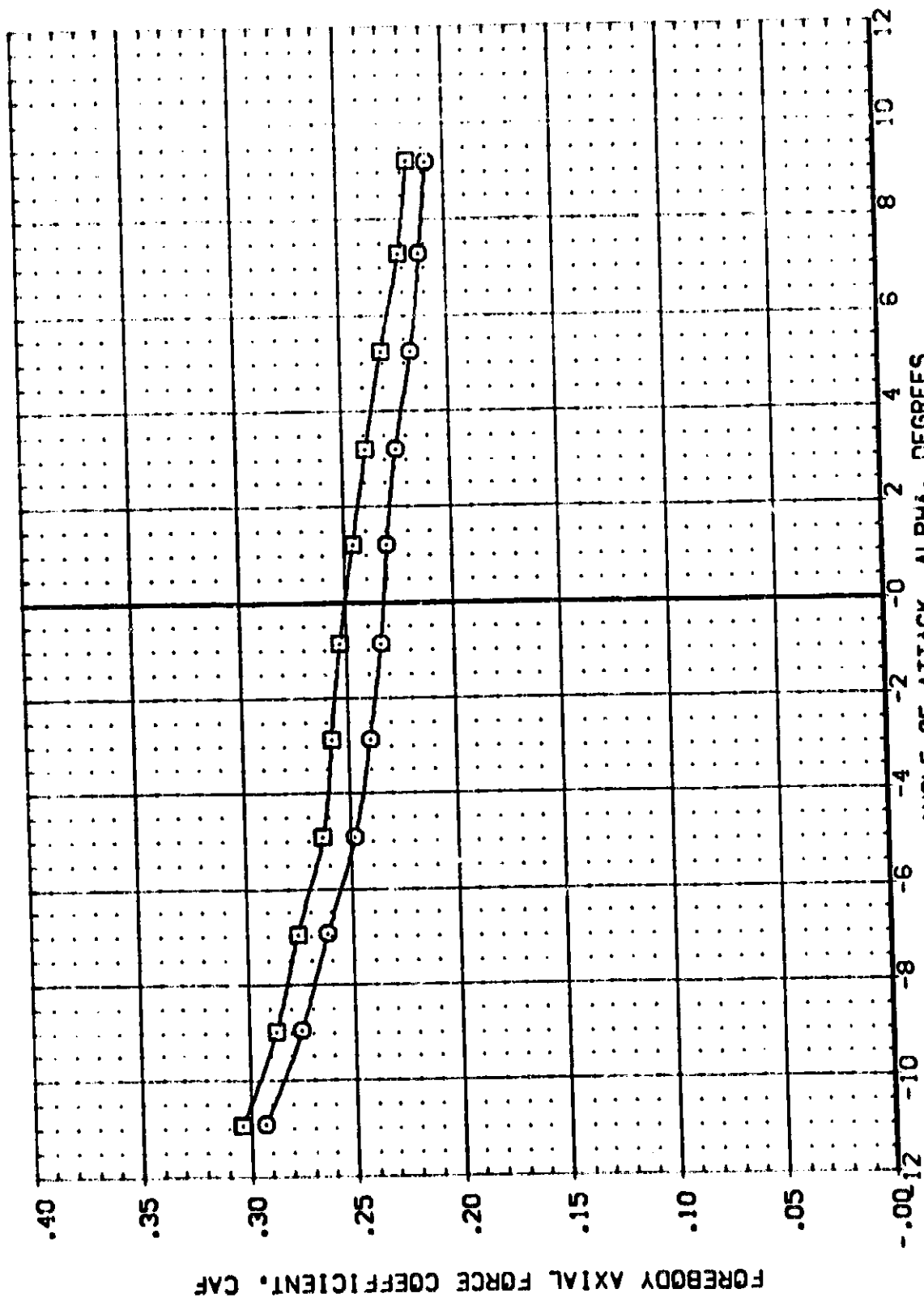
REFERENCE INFORMATION
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 LREF 5.313
 BREF 5.313
 XGRP 2.542
 YGRP .000
 ZGRP .000
 SCALE .001



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL	CONFIDENTIALITY DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION
(08100)	MSE \$66 (IAGIF) PCR 0074 LV 03 TS S3	.500	.000	.136	.000	SAGE 6-198
(08100)	MSE \$66 (IAGIF) PCR 0074 LV 03 TS S3	.500	.000	.136	.000	SAFE 5-23-78
(08100)	MSE \$66 (IAGIF) PCR 0074 LV 03 TS S3	.500	.000	.136	.000	SAFE 5-23-78
						SAFE 5-23-78
						X-RPD 2
						X-RPD .000
						Z-RPD .000
						SCALE .000

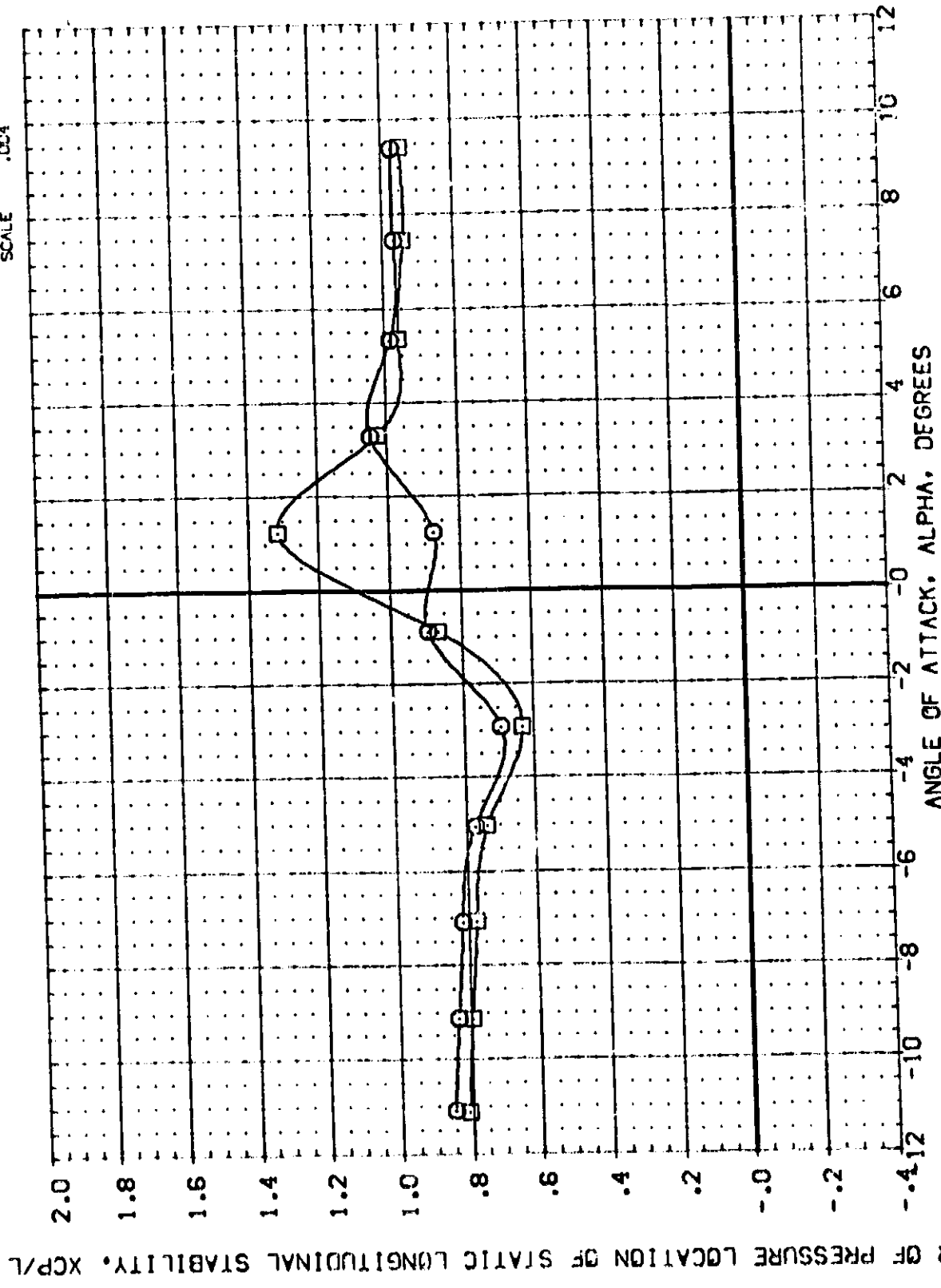


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (231001) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (381009) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .400 .000

REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004

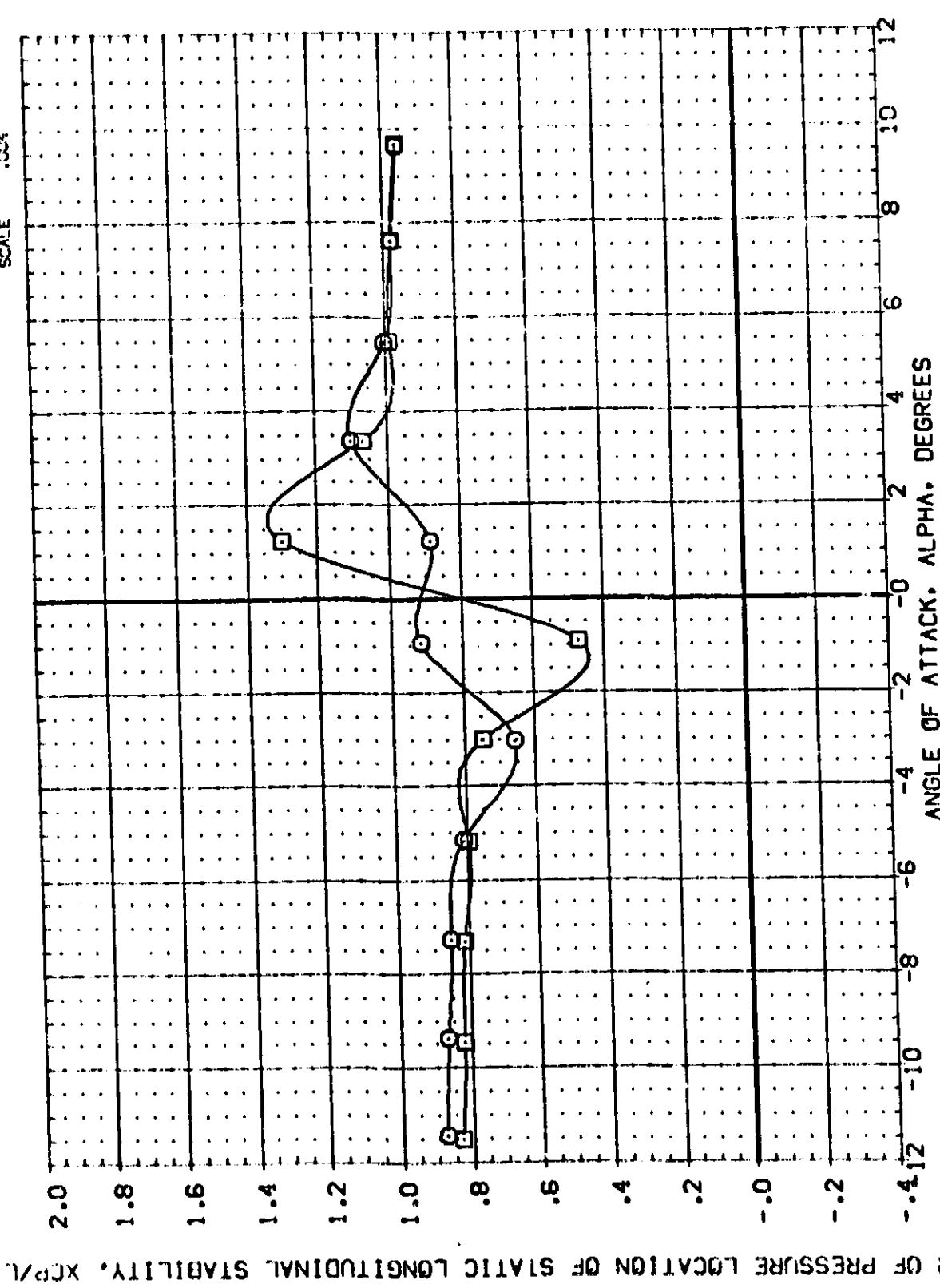


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(MACH = 0.60)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 TS 53	.500	.000	.136	.000	SREF 6.198
(081009)	MSFC 566 (1A31F) MCR 0074 LV 03 TS 53	.500	.400	.136	.000	LREF 5.313
						BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

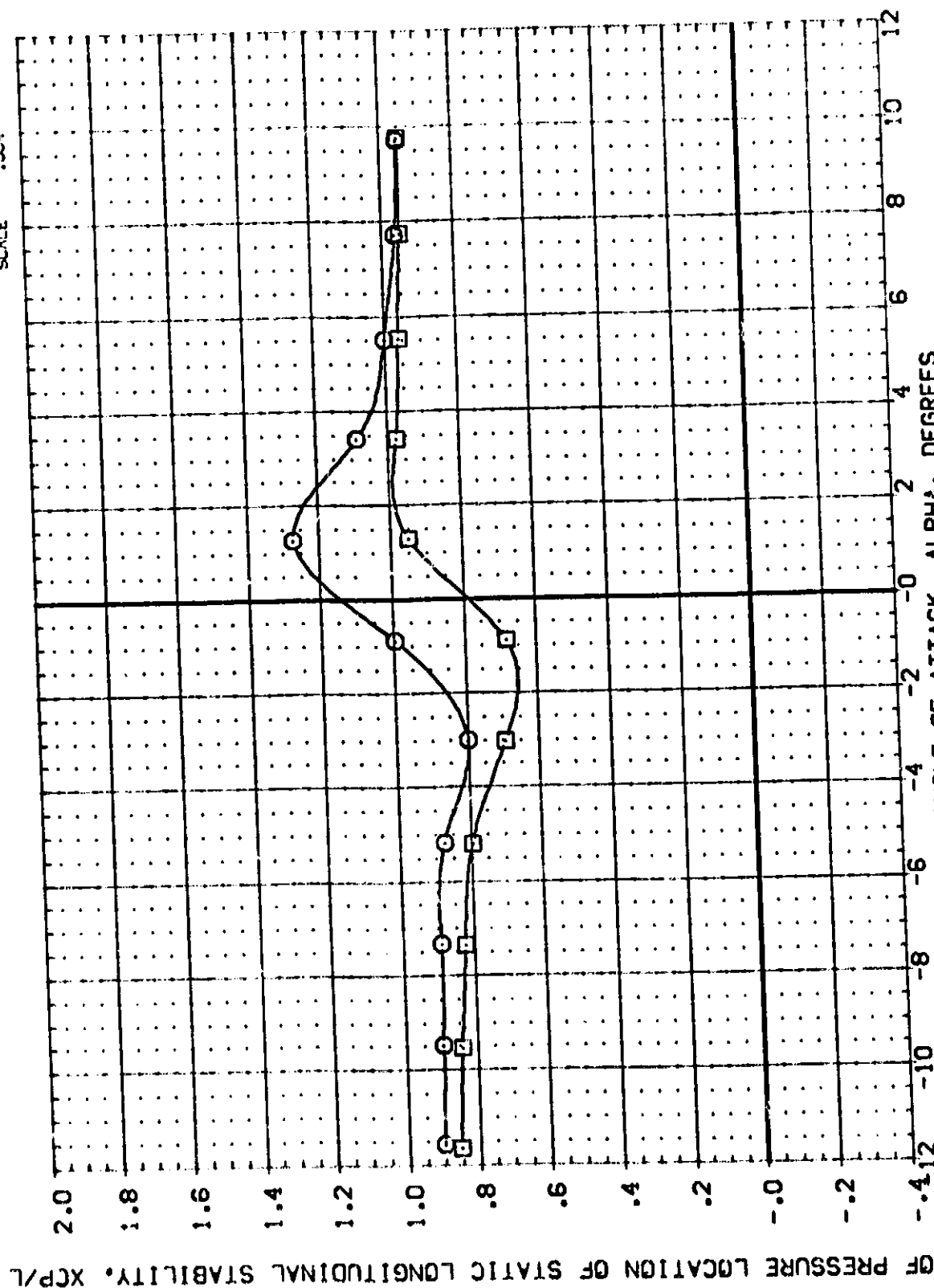
(B)MACH = 0.91

DATA SET SYMBOL: (08:001) (08:009)

CONFIGURATION DESCRIPTION
 MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 MSC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .400 .000

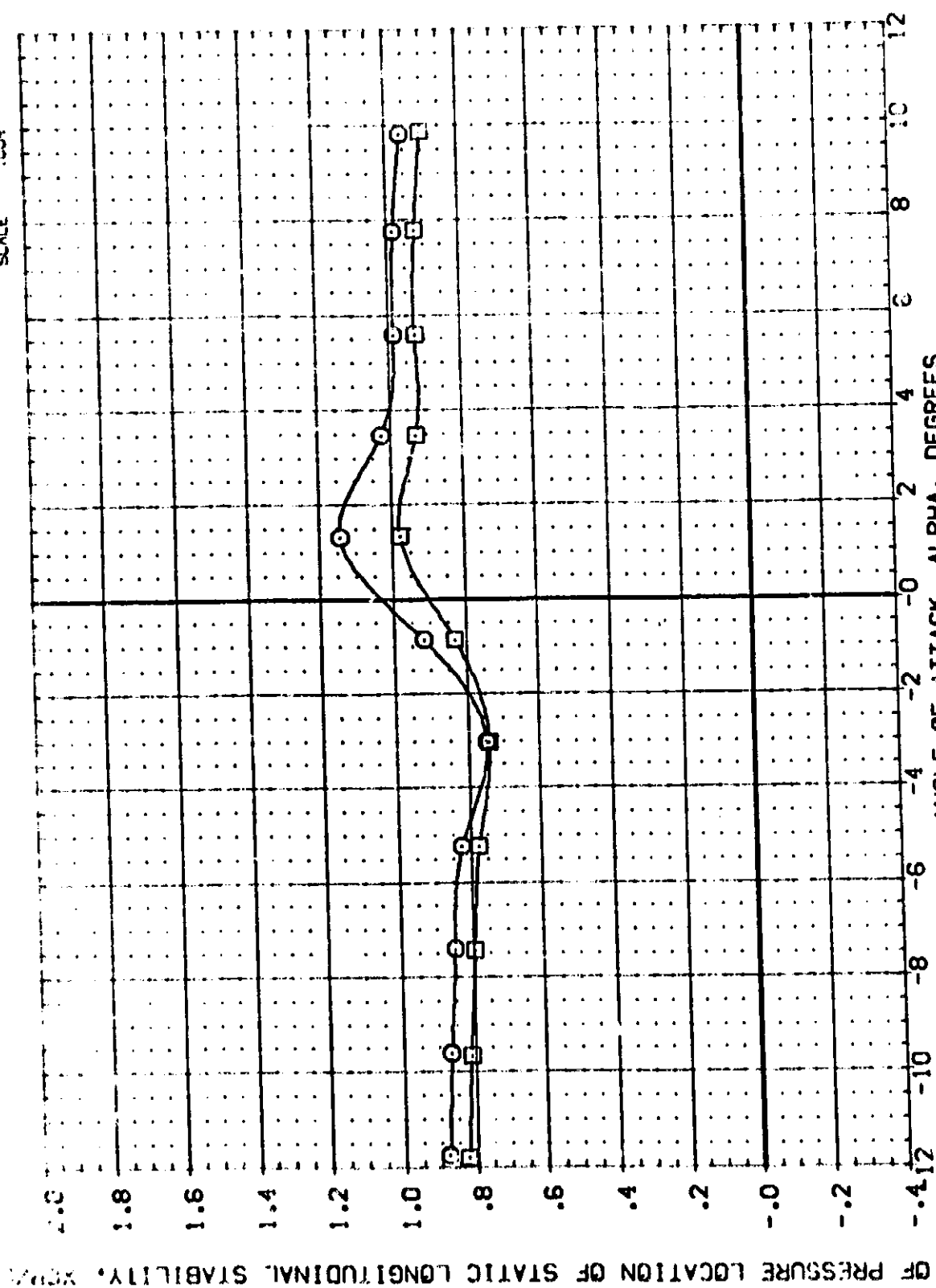
REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.546
 YMRP .000
 ZMRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

88	586	137	137	387	LV	63	218
89	586	137	137	387	LV	63	218
90	586	137	137	387	LV	63	218
91	586	137	137	387	LV	63	218
92	586	137	137	387	LV	63	218
93	586	137	137	387	LV	63	218
94	586	137	137	387	LV	63	218
95	586	137	137	387	LV	63	218
96	586	137	137	387	LV	63	218
97	586	137	137	387	LV	63	218
98	586	137	137	387	LV	63	218
99	586	137	137	387	LV	63	218



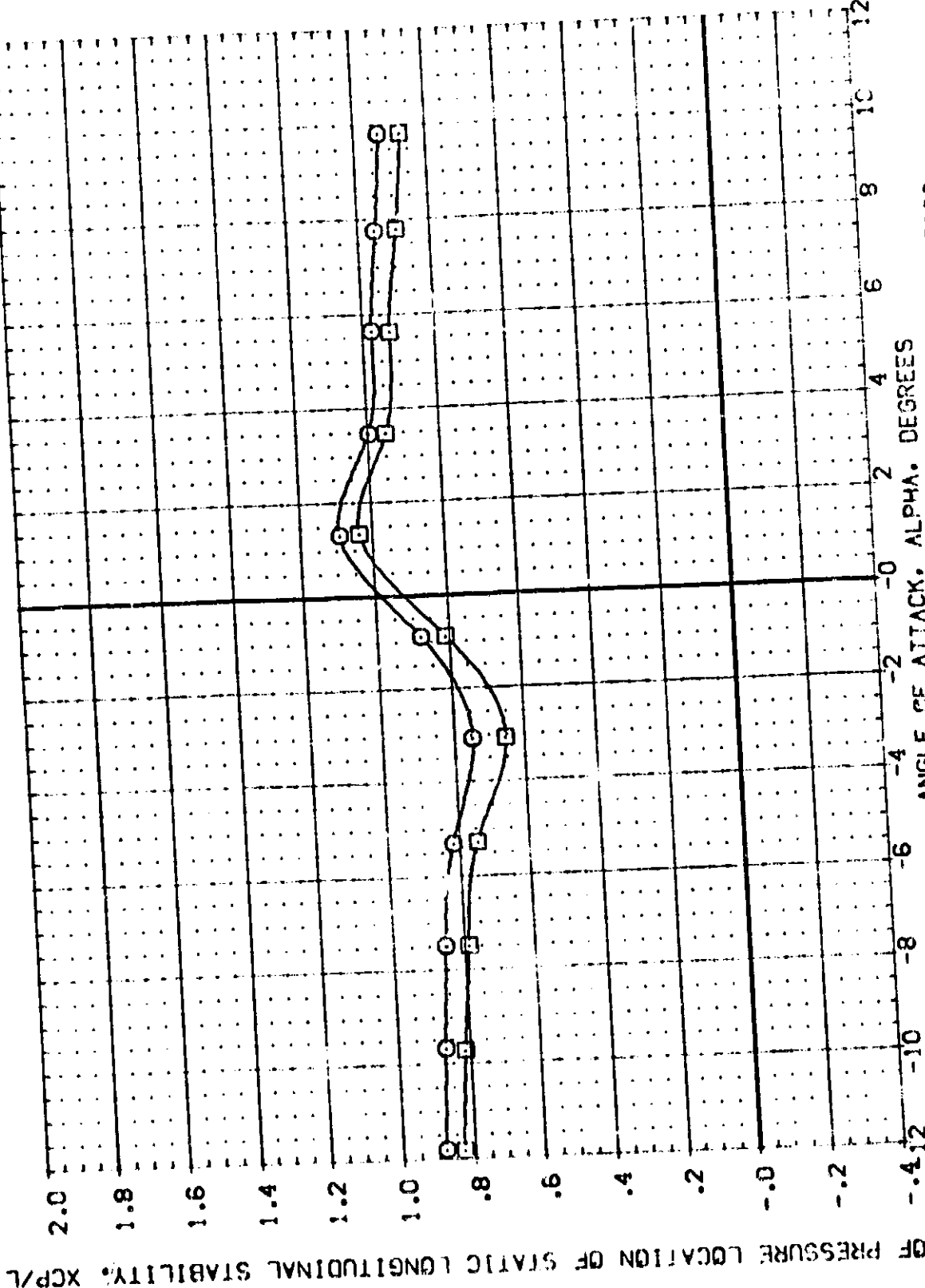
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

COMACH = :.25

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DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (281001) H5FC 566 (1A31F) MCR 0074 LV 03 T3 S3
 (281009) H5FC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .400 .000



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

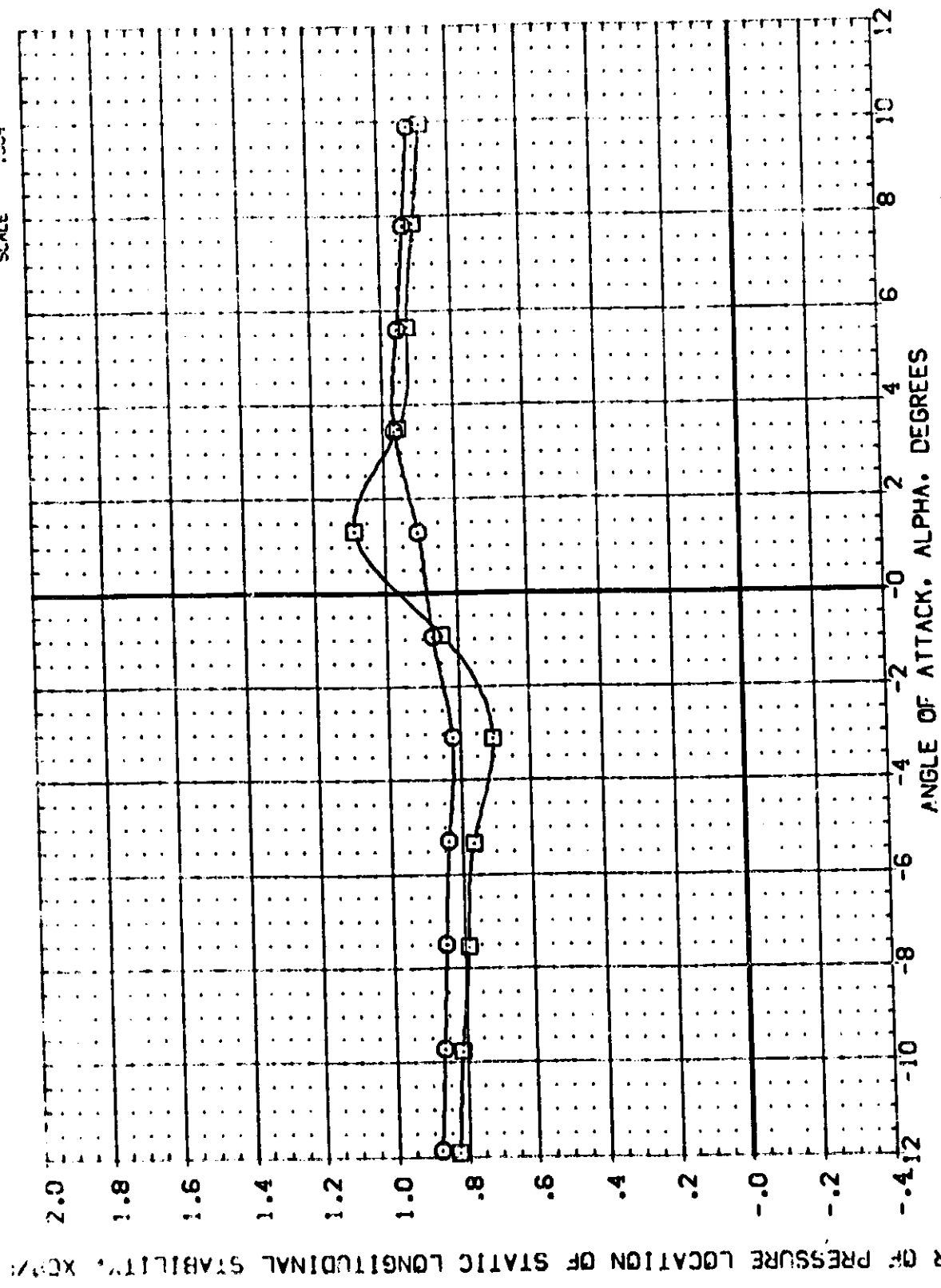
(MACH = 1.45)

ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ IN

ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SQ IN
.500	.000	.36	.000	SRF	6.196
.500	.400	.36	.000	LRP	3.313
				BRF	3.313
				XPR	2.549
				YPR	.000
				ZPR	.000
				SCALE	.004

CONFIGURATION DESCRIPTION

CONFIG	DESCRIPTION
000	000
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002	002
003	003
004	004
005	005
006	006
007	007
008	008
009	009
010	010
011	011
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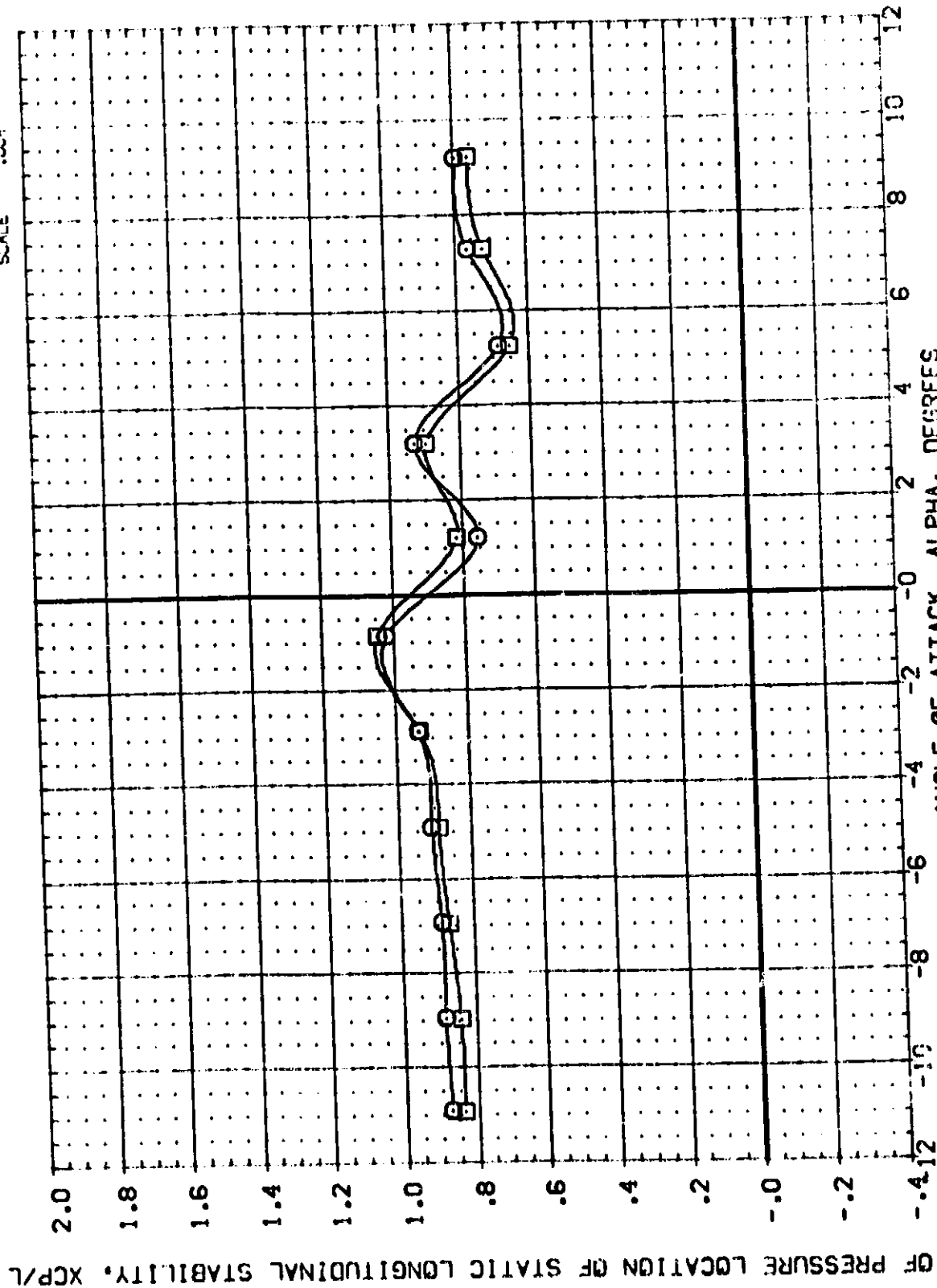


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (38:001) (C) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (38:009) (C) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

DRBINC X-SRB DELTAZ RUDDER
 .500 .000 .000
 .500 .136 .000

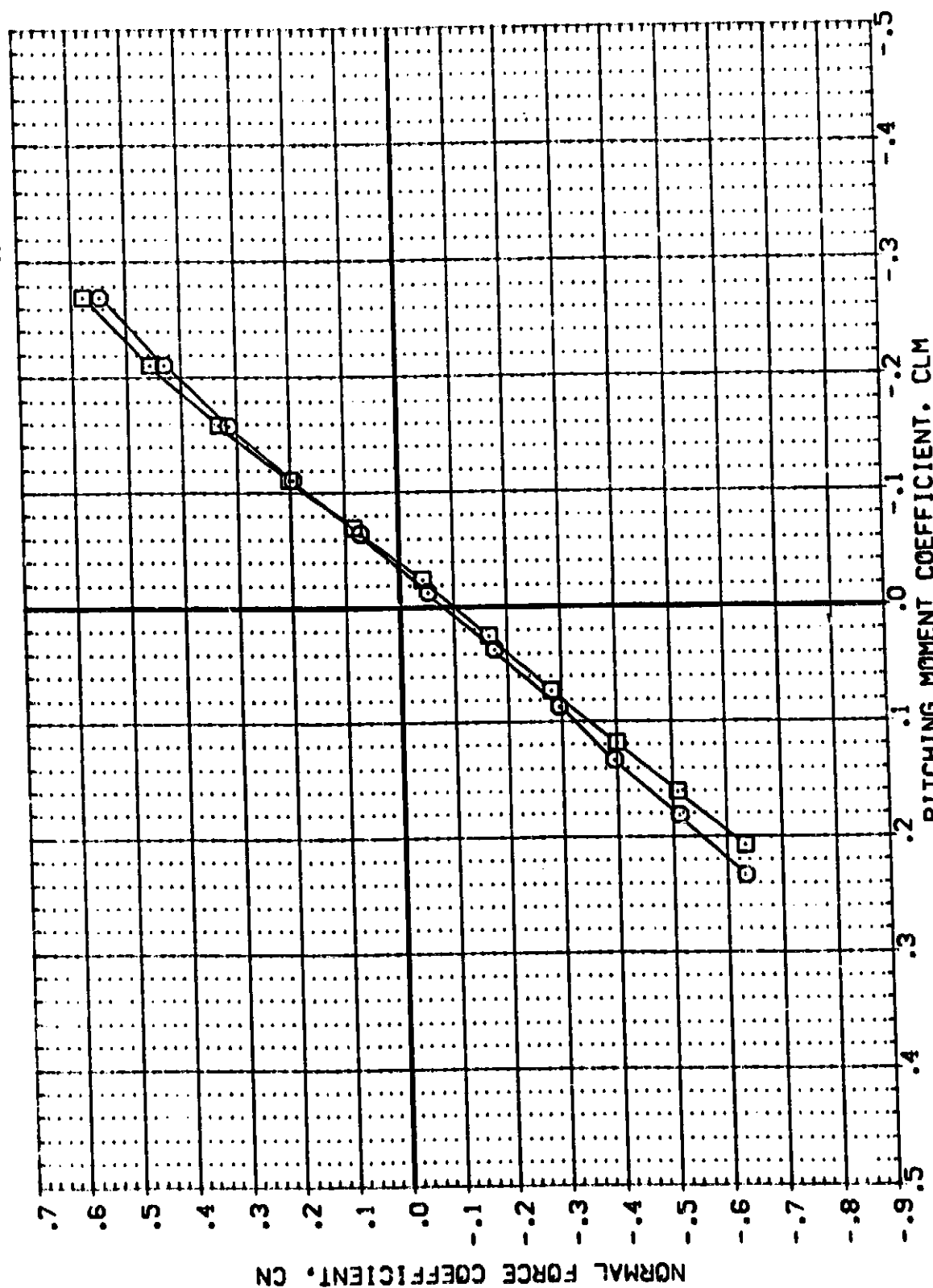


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(GM)MACH = 4.96



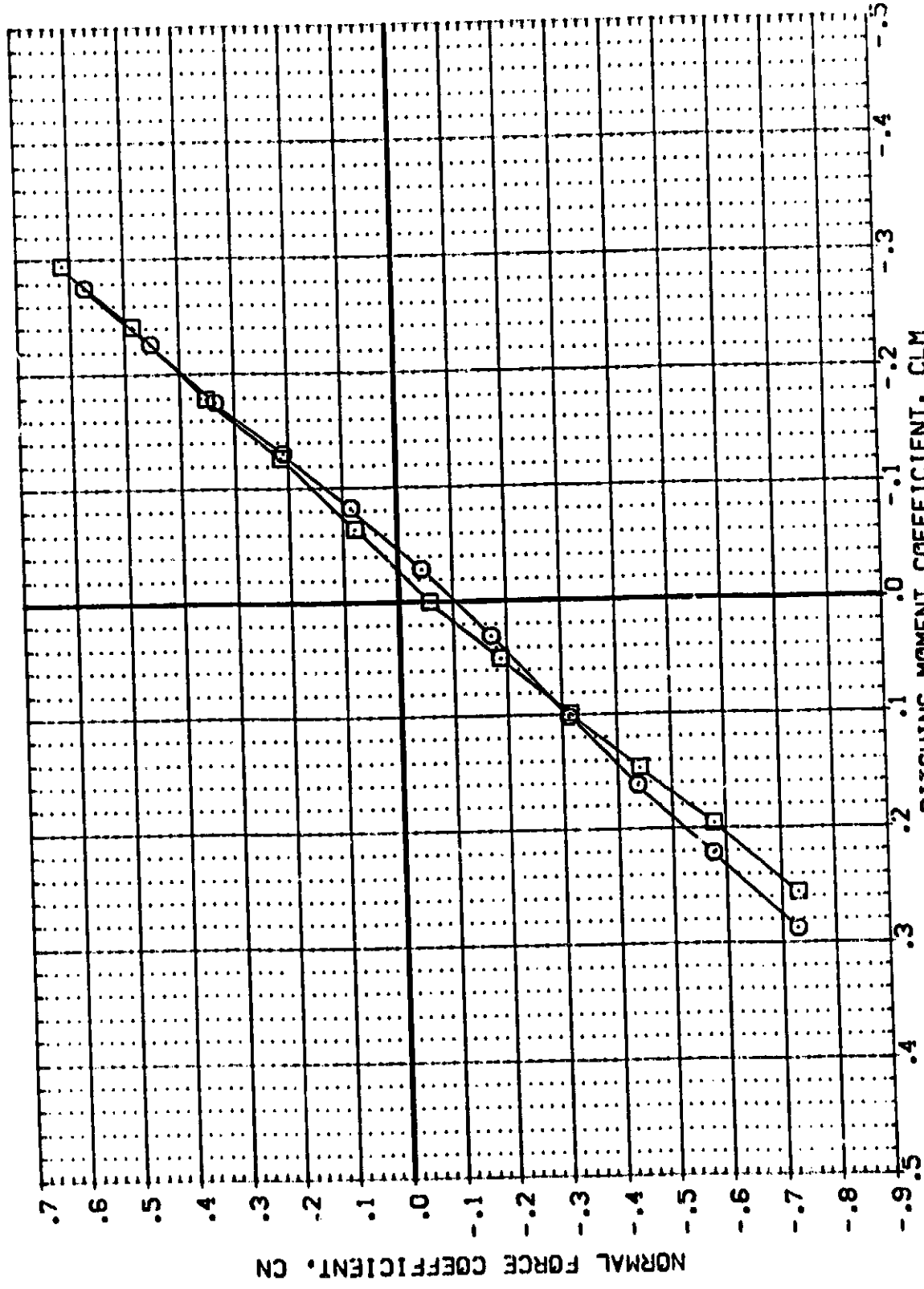
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITING	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
081001	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF	6.198
081002	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.400	.136	.000	LREF	5.313
						BREF	5.313
						XMRP	2.548
						VMRP	.000
						ZMRP	.000
						SCALE	.004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

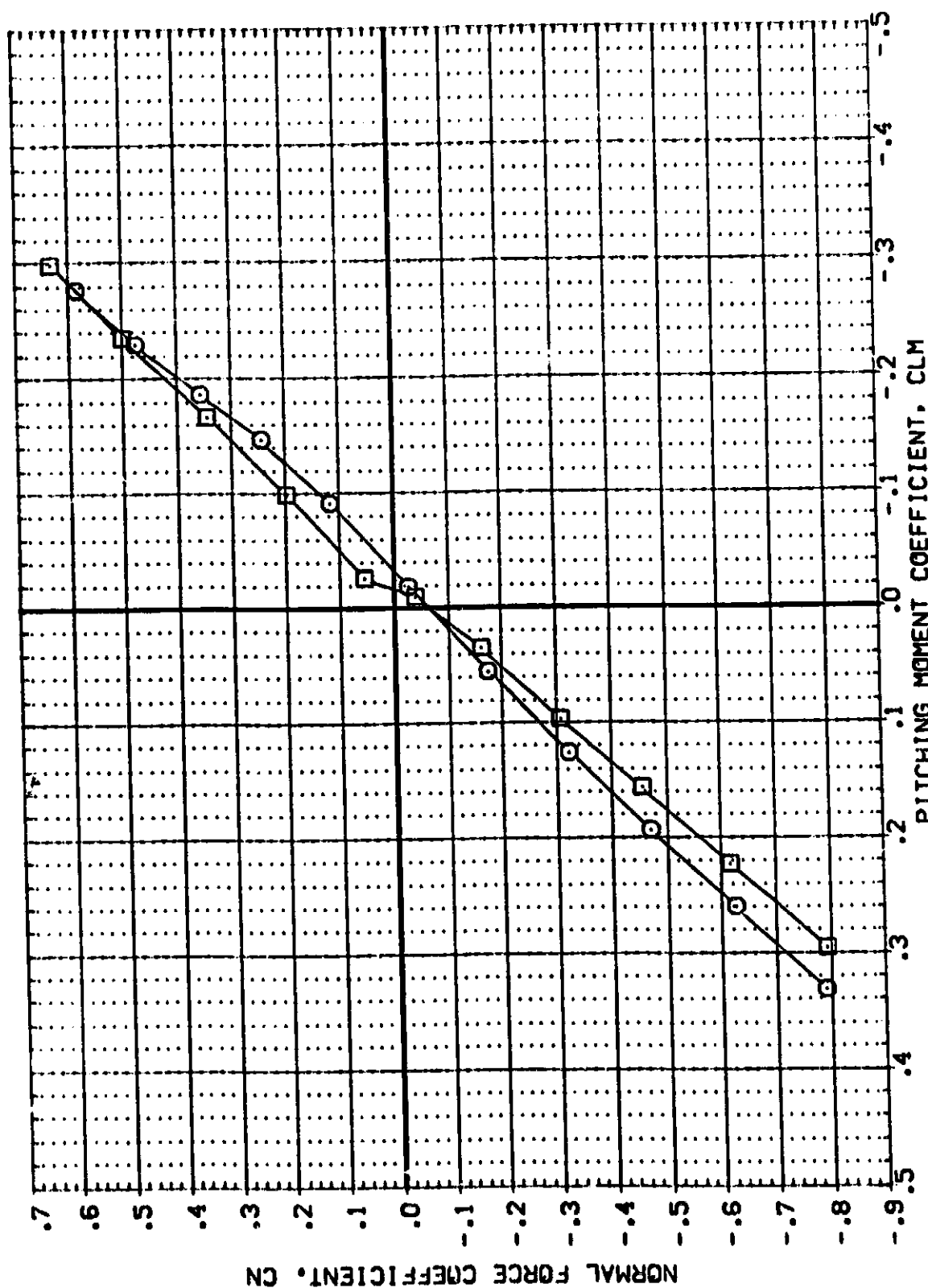
DATA SET SYMBOL: Q
 CONFIGURATION DESCRIPTION: MSC 566 (IA3IF) MCR 0074 LV 03 19 S3
 ORBINC: .500
 X-SRB: .400
 DELTAZ: .136
 RUDDER: .000
 REFERENCE INFORMATION:
 SREF: 6.198
 LREF: 5.313
 BREF: 5.313
 XMRP: 2.546
 YMRP: .000
 ZMRP: .000
 SCALE: .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(B)MACH = 0.91

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORIGIN		X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
(081001)	□	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S2	.500	.000	.000	.136	.000	SREF	6.196
(081001)	□	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.400	.000	.136	.000	LRF	5.313
									BRF	5.313
									ATRP	2.549
									YTRP	.000
									ZTRP	.000
									SCALE	.004

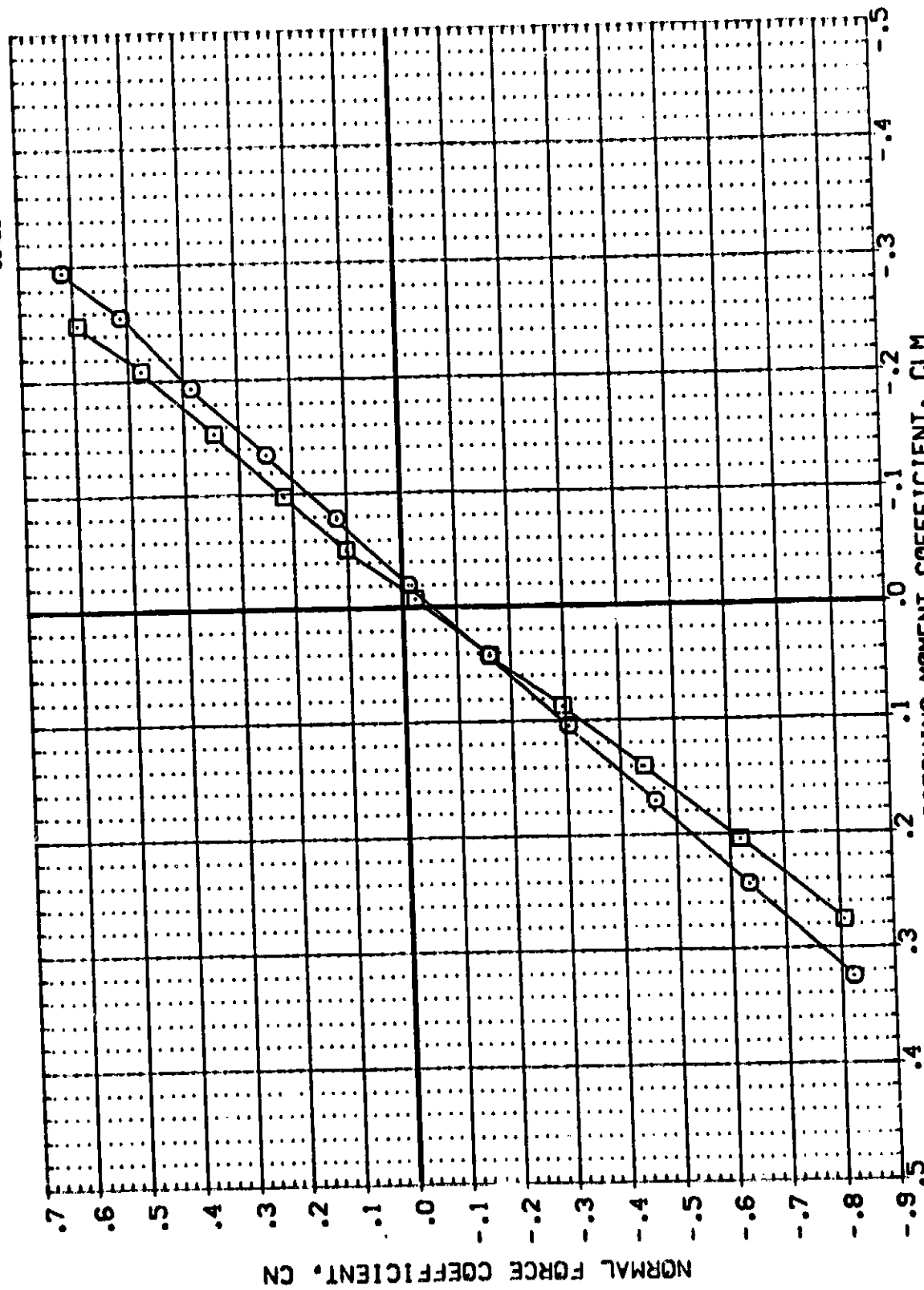


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL (081001) (081009) CONFIGURATION DESCRIPTION MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .136 .000 SREF 6.198 SC. IN
 .500 .400 .136 .000 LREF 5.313 IN.
 .500 .400 .136 .000 BREF 5.313 IN.
 .500 .400 .136 .000 XREF 2.548 IN.
 .500 .400 .136 .000 YREF .000 IN.
 .500 .400 .136 .000 ZREF .000 IN.
 .500 .400 .136 .000 SCALE .004



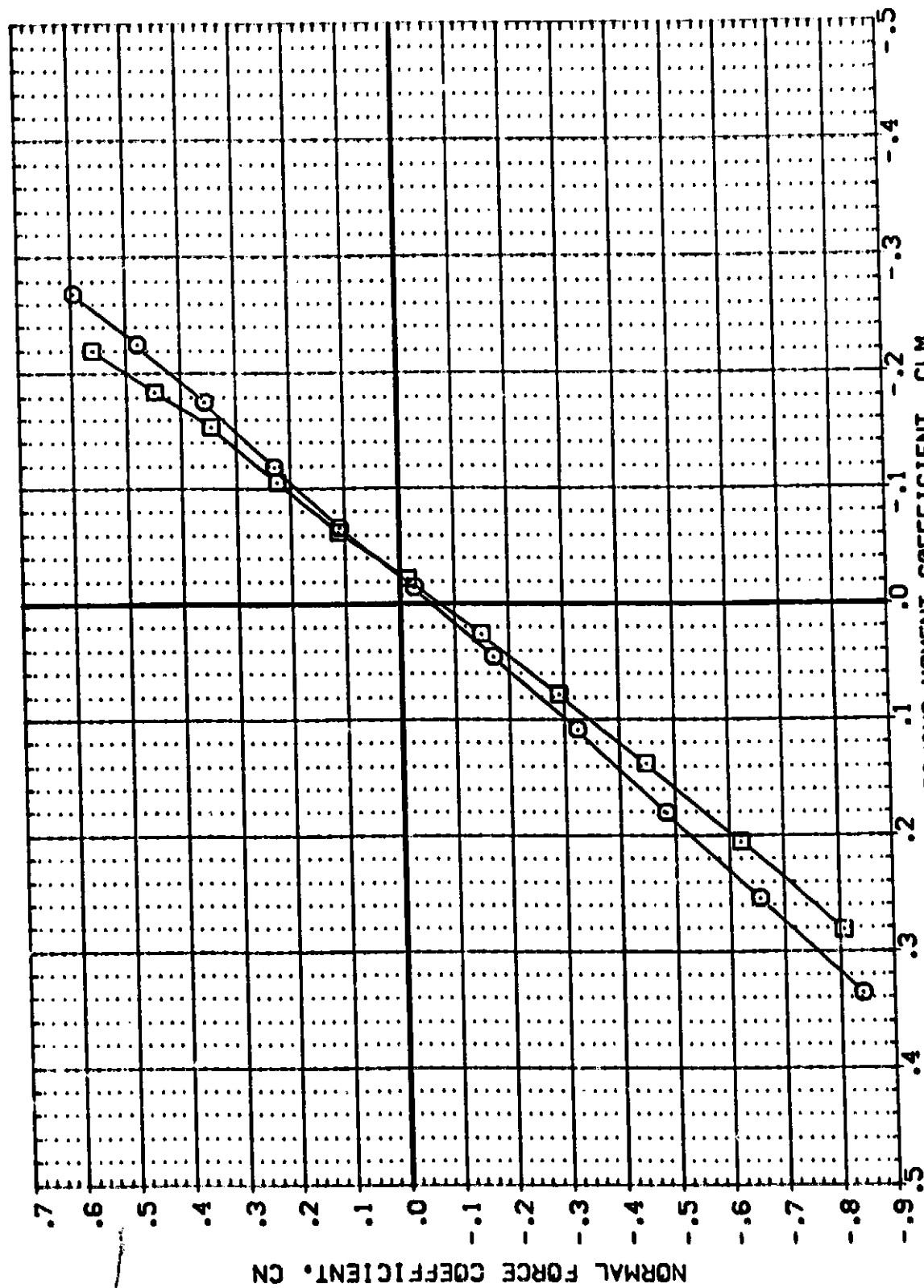
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(0)MACH = 1.25



DATA SET SYMBO. CONFIGURATION DESCRIPTION
 (281001) ☐ MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (281002) ☐ MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

SRB INC X-SRB DELTA2 RUDDER REFERENCE INFORMATION SD. IN
 .500 .000 .136 .000
 .500 .400 .136 .000
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004



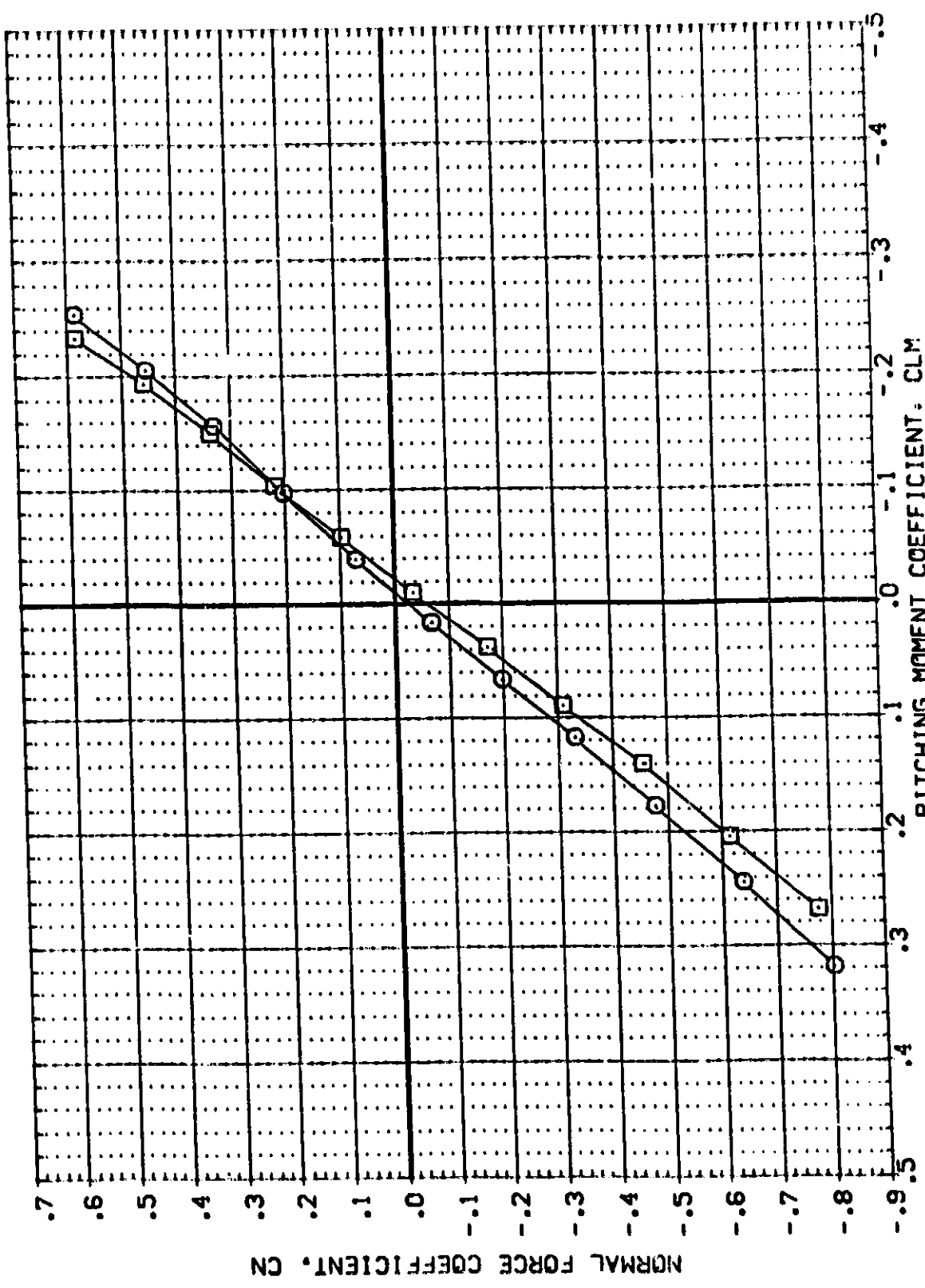
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(E)MACH = 1.45

ORBINC X-SRB DELTAZ RUDDER
 .500 .000 .000
 .500 .400 .000

REFERENCE INFORMATION
 SREF 6.199
 LREF 5.313
 BREF 5.313
 XREF 2.549
 YREF .000
 ZREF .000
 SCALE .001

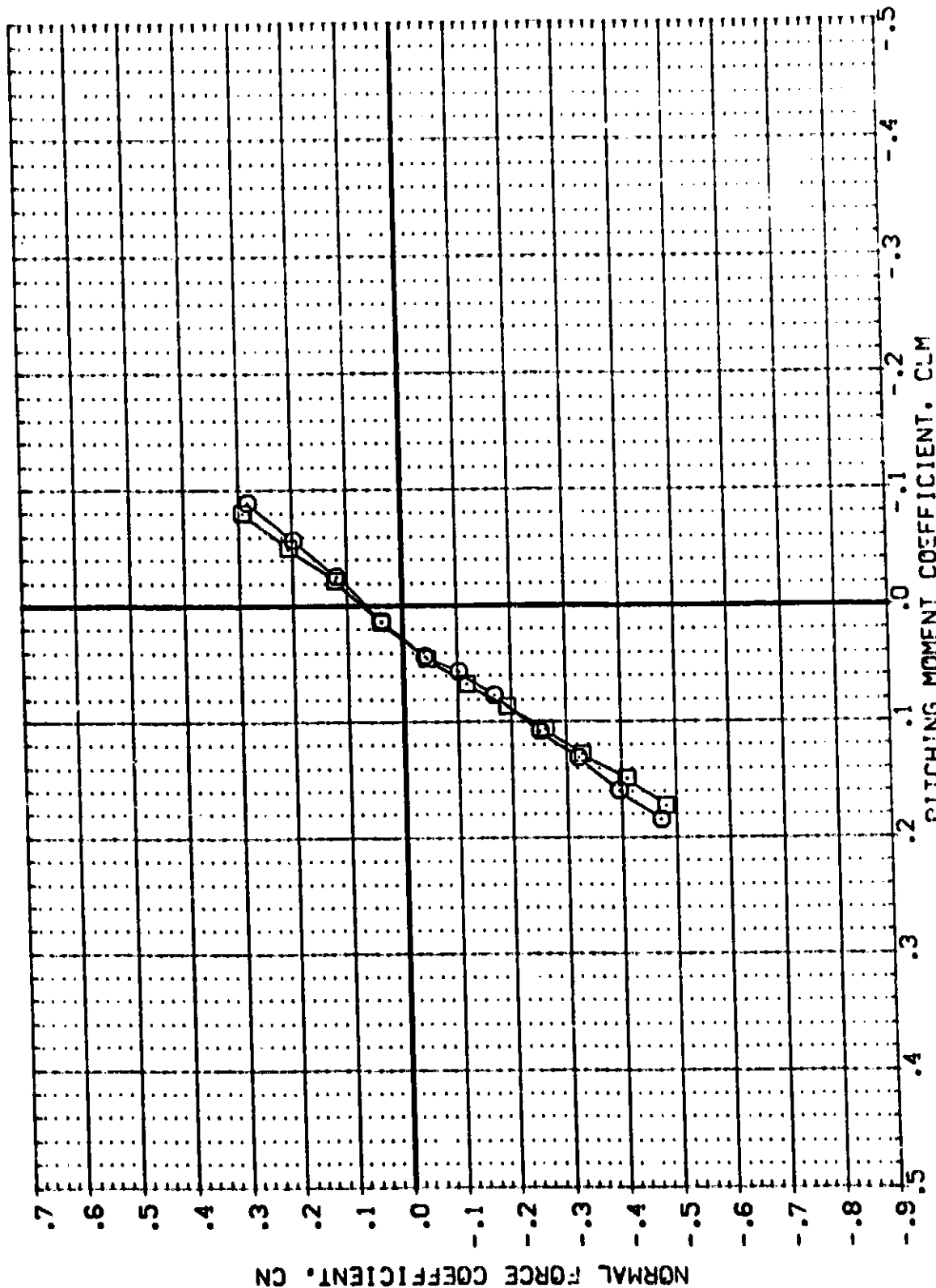
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (08:00) H5FC 566 (1A3:F) MCR 0074 LV 03 19 S3
 (08:00) H5FC 566 (1A3:F) MCR 0074 LV 03 19 S2



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION
(281001)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SRF 6.199
(281009)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LRF 5.313
						BRF 5.313
						YPRP 2.549
						ZPRP .000
						SCALE .004



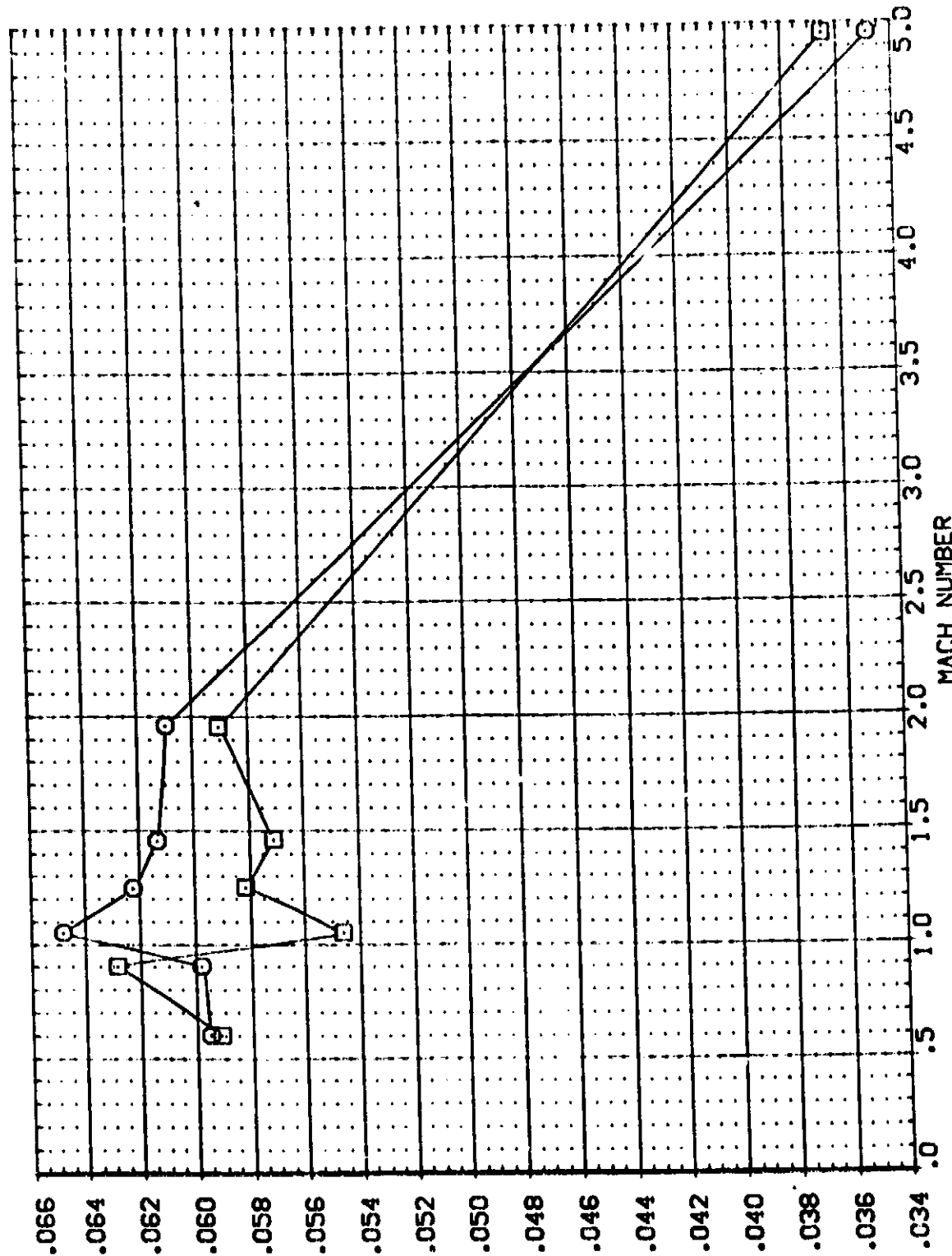
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

NORMAL FORCE COEFFICIENT DERIVATIVE WITH ALPHA, CNALFA, PER DEGREE

DATA SET SYMBOL: 0074
 CONFIGURATION DESCRIPTION: WSC 566 (1A31F) WCR 0074 LV 33 19 S3
 WSC 566 (1A31F) WCR 0074 LV 33 19 S3

ORBITAL X-SRB DELTAZ RUDDER
 .500 .000 .136 .000
 .500 .400 .136 .000

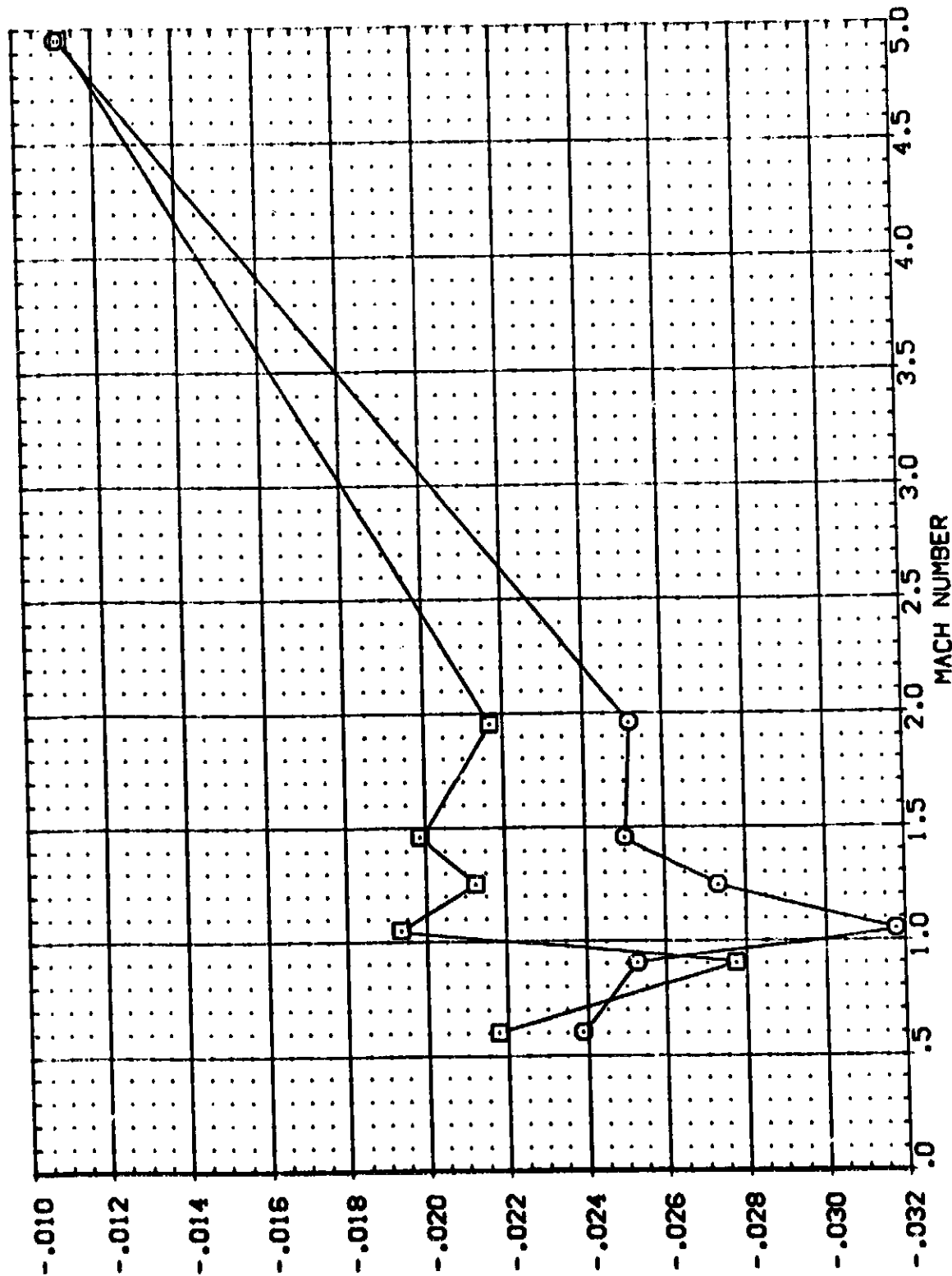
REFERENCE INFORMATION
 SREF 6.199
 LREF 5.313
 BREF 5.313
 XREF 2.549
 YREF .000
 ZREF .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

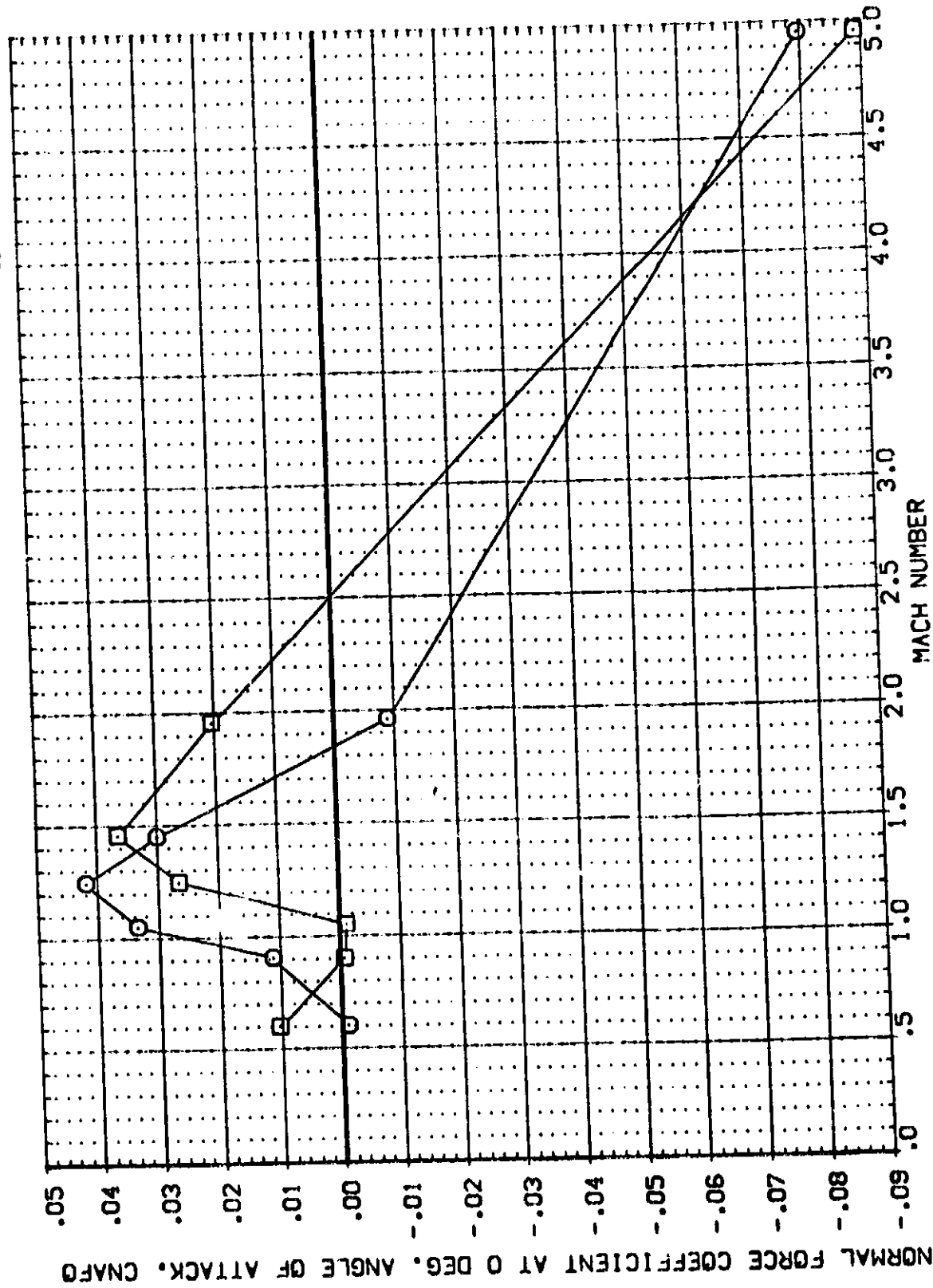
DATA SET SYMBOL: 081001) 081009) CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 ORBITAL X-508 DELTA Z RUDDER REFERENCE INFORMATION SREF 6.198 SO. IN LREF 5.313 BREF 5.313 XREF 2.548 YREF .000 ZREF .000 SCALE .004

PITCHING MOMENT COEFFICIENT DERIVATIVE WITH ALPHA, CLMAF, PER DEGREE



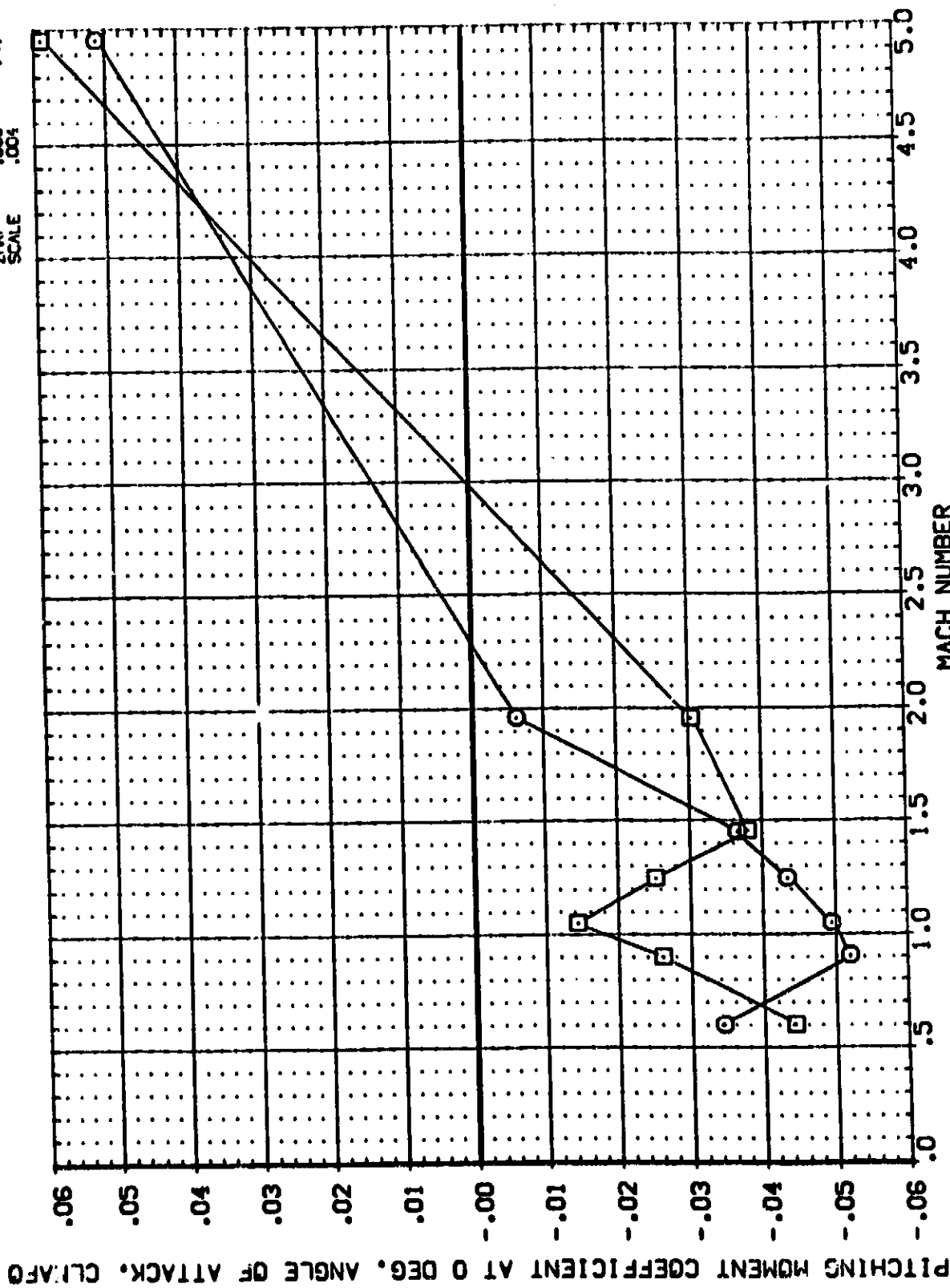
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: 01
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (281009)
 ORBING X-SRB DELTAZ RUDDER SREF REFERENCE INFORMATION
 .500 .000 .000 6.198
 .500 .400 .000 5.313
 .000 .000 .000 5.313
 .000 .000 .000 2.548
 .000 .000 .000 .000
 .000 .000 .000 .000
 .000 .000 .000 .000
 SCALE .004



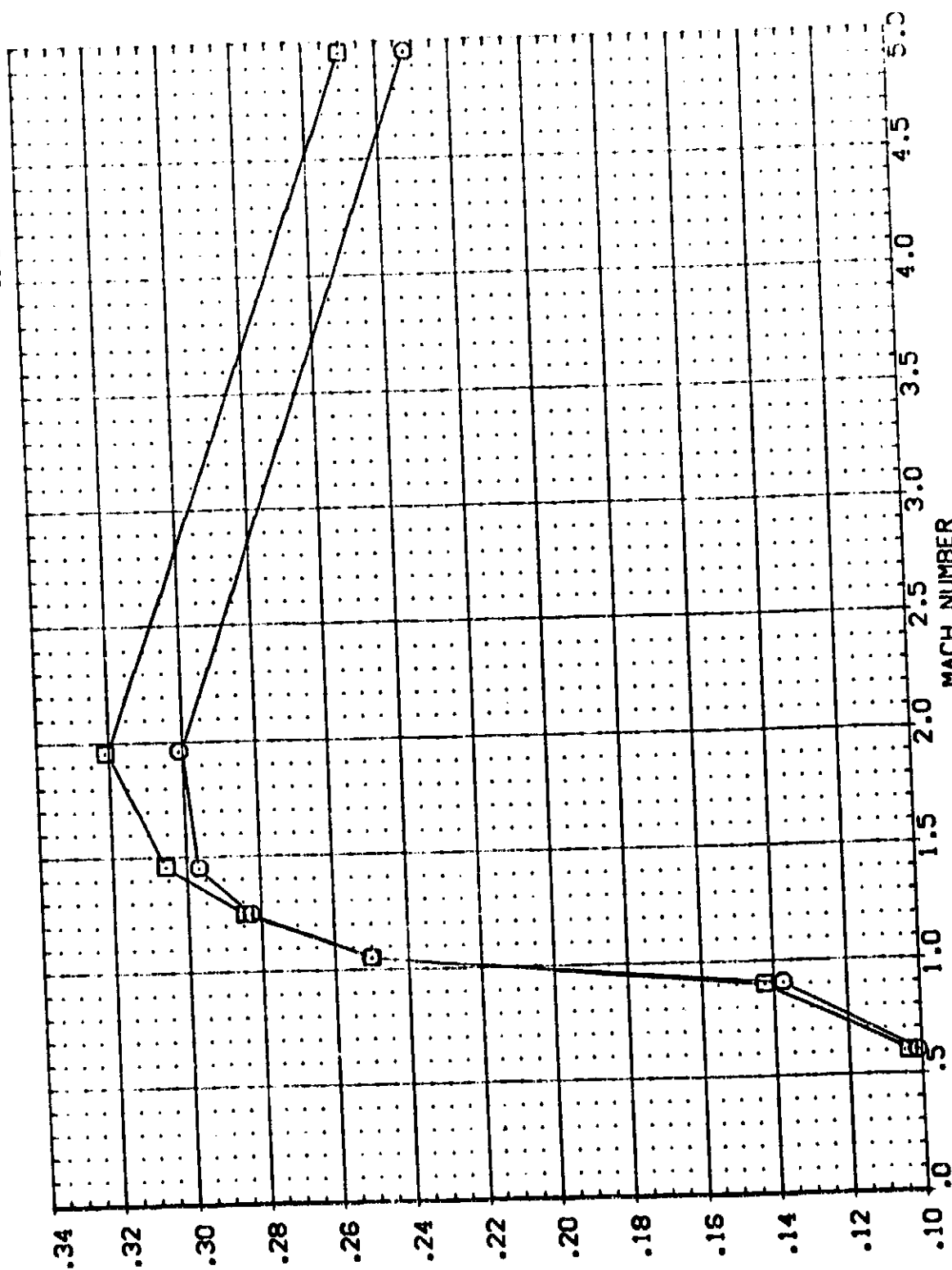
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB:001)	HS-C 565 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.199
(DB:009)	HS-C 565 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LRUF 5.313
						BRUF 5.313
						YMRP 2.549
						ZMRP .000
						SCALE .000
						IN.
						IN.
						IN.
						IN.
						IN.
						IN.



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: Q
 CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) MCR 0074 LV 03 TS 53
 MSFC 566 (IA31F) MCR 0074 LV 03 TS 53
 ORBINC: .500
 X-SRB: .000
 DELTA Z: .136
 RUDDER: .000
 REFERENCE INFORMATION: SCALE: .001
 SREF: 6.196
 LREF: 5.313
 XREF: 5.345
 YREF: 5.345
 ZREF: 5.345
 SCALE: .001



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: (081001) (081005)

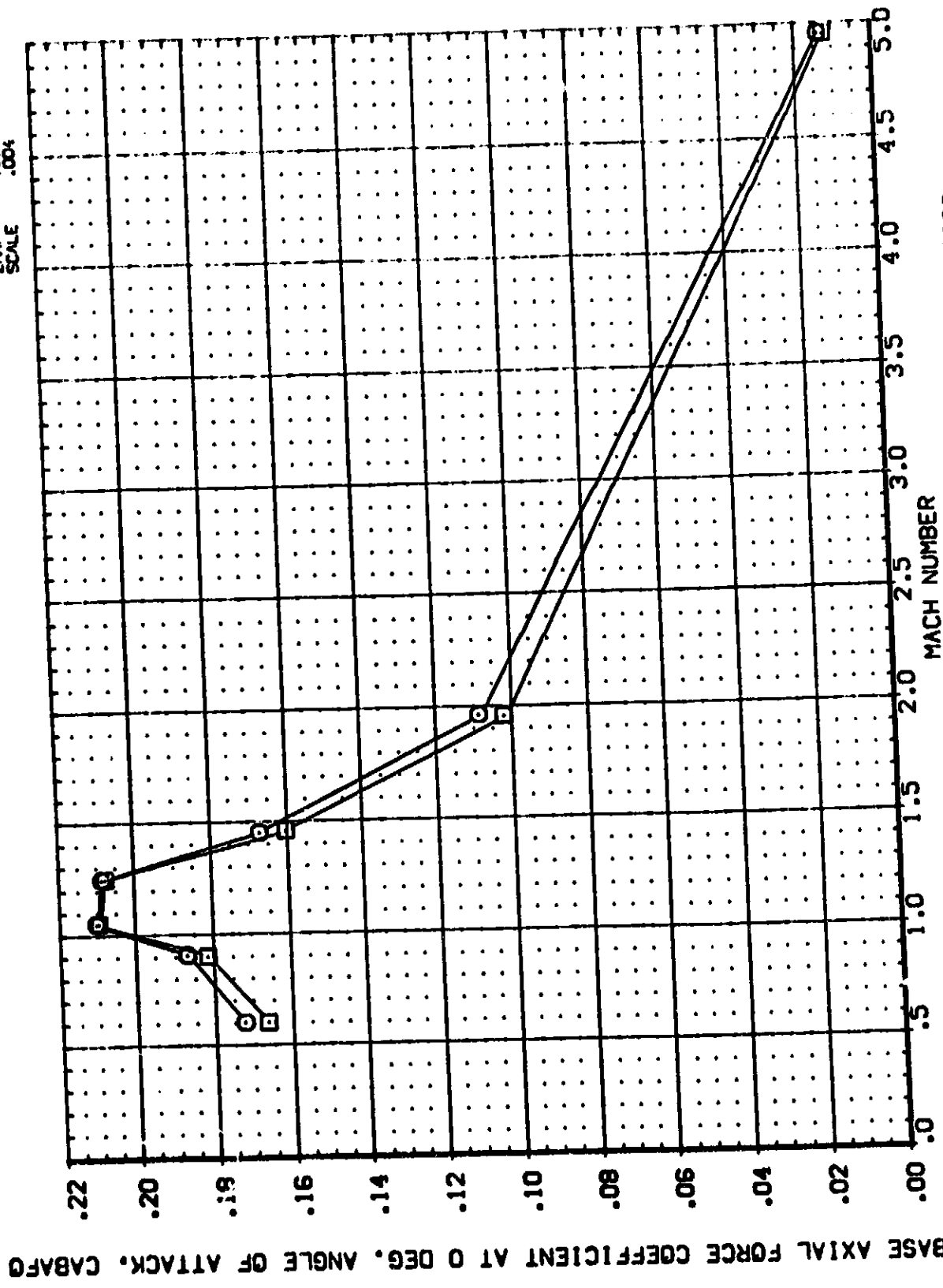
CONFIGURATION DESCRIPTION:
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL: X-508
 .500
 .500

DELTA Z
 .136
 .136

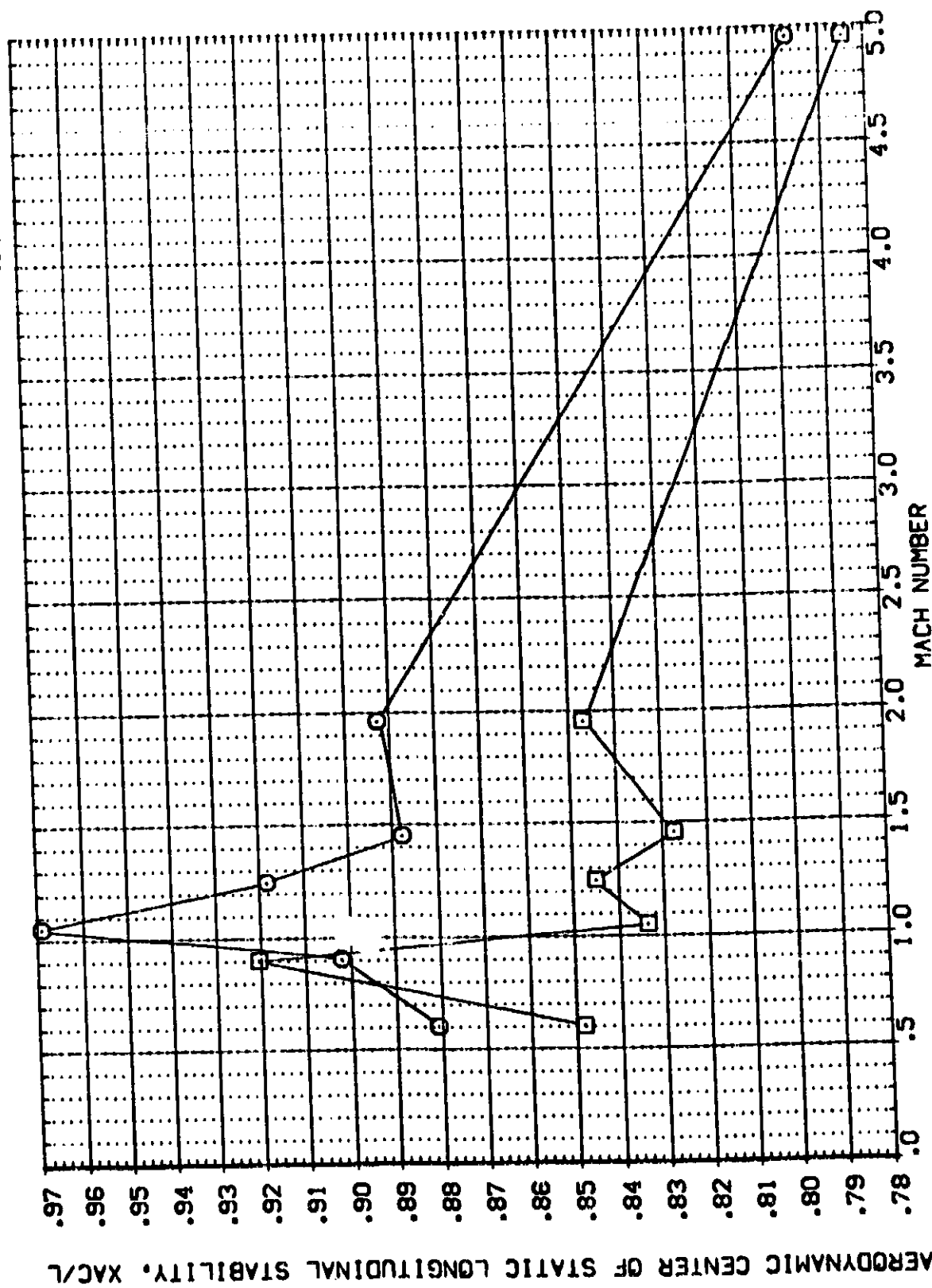
RUDER
 .000
 .000

REFERENCE INFORMATION:
 SREF 5.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

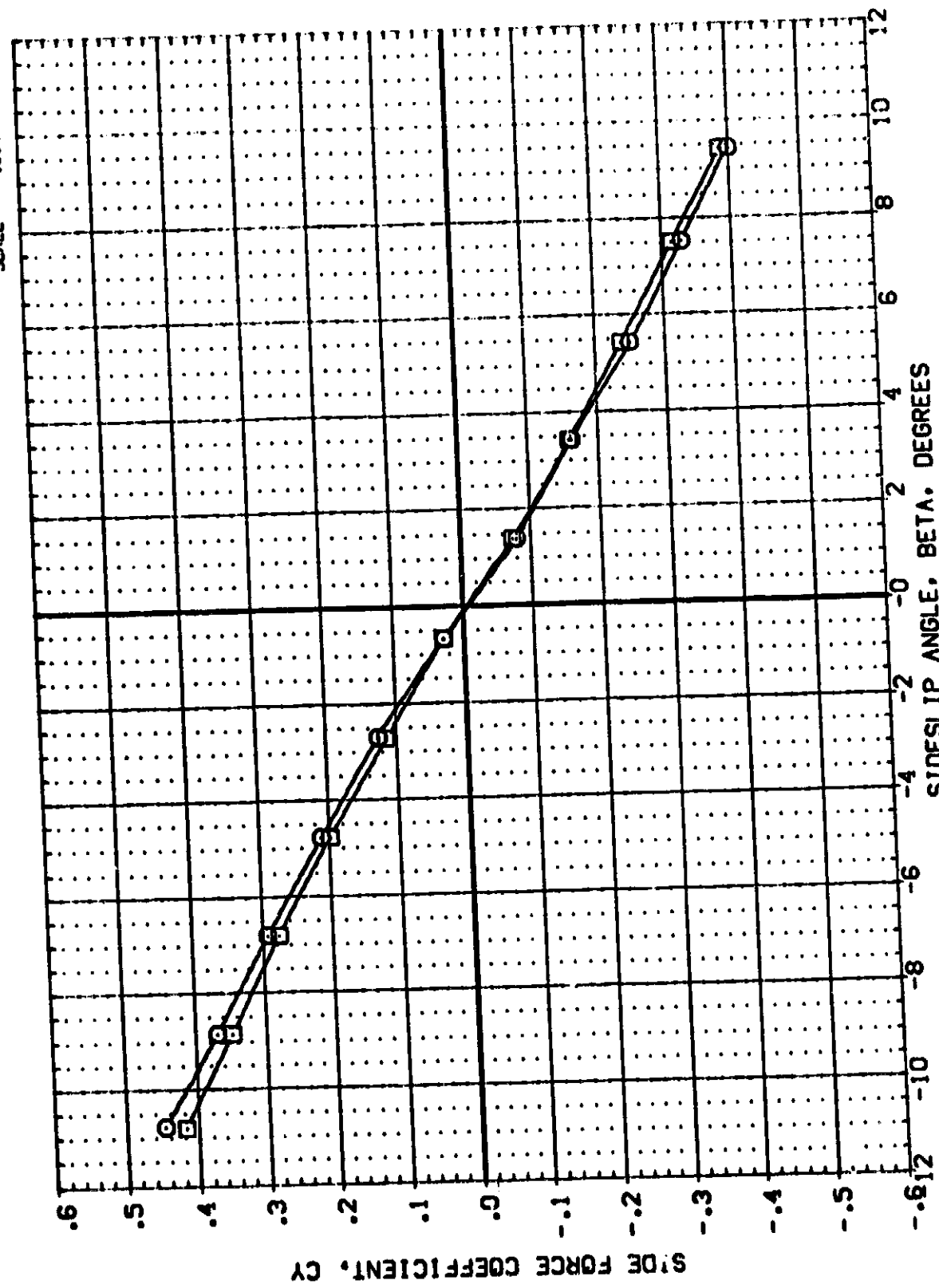
DATA SET SYMBOL	CONFIGURATION	DESCRIPTION		
[08:1001]	MSFC 566	[IA3:F] MCR 0074	LV	03 19 53
[08:0053]	MSFC 566	[IA3:F] MCR 0074	LV	03 19 53

[illegible]

EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: (DB1002) (DB1010)
 CONFIGURATION DESCRIPTION: HSC 566 (IA31F) MCR 0074 LV 03 19 S3
 HSC 566 (IA31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198 SD. IN.
 .500 .000 .000 LREF 5.313 IN.
 .000 .000 .000 BREF 5.313 IN.
 .000 .000 .000 YMRP 2.549 IN.
 .000 .000 .000 ZMRP .000 IN.
 .004 SCALE .004



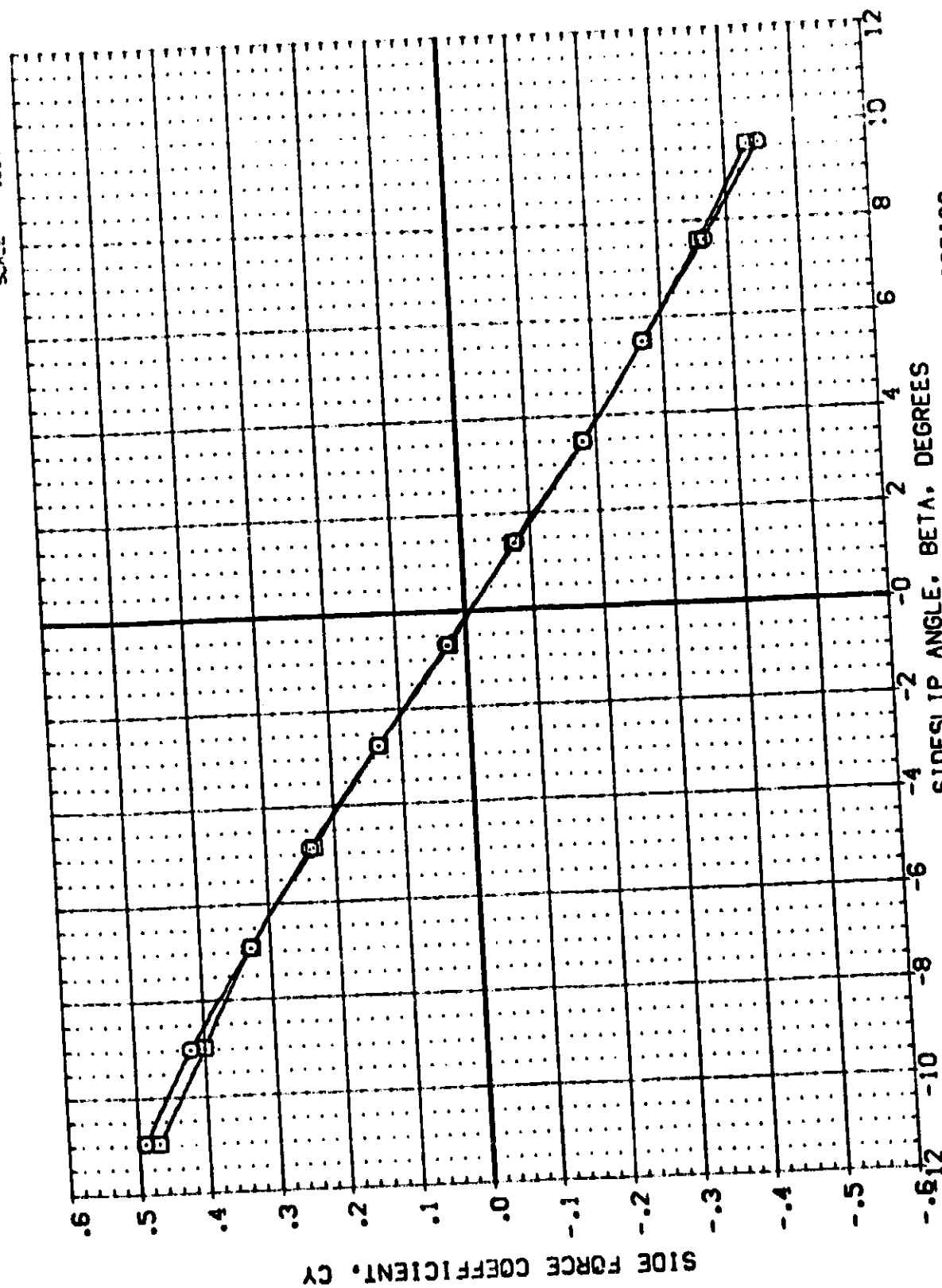
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(MACH = 0.60)

DATA SET SYMBOL: [081002] [081010]
 CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000
 .500 .000
 .500 .000

REFERENCE INFORMATION:
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XREF 2.541
 YREF 2.541
 ZREF 2.541
 SCALE 1.000



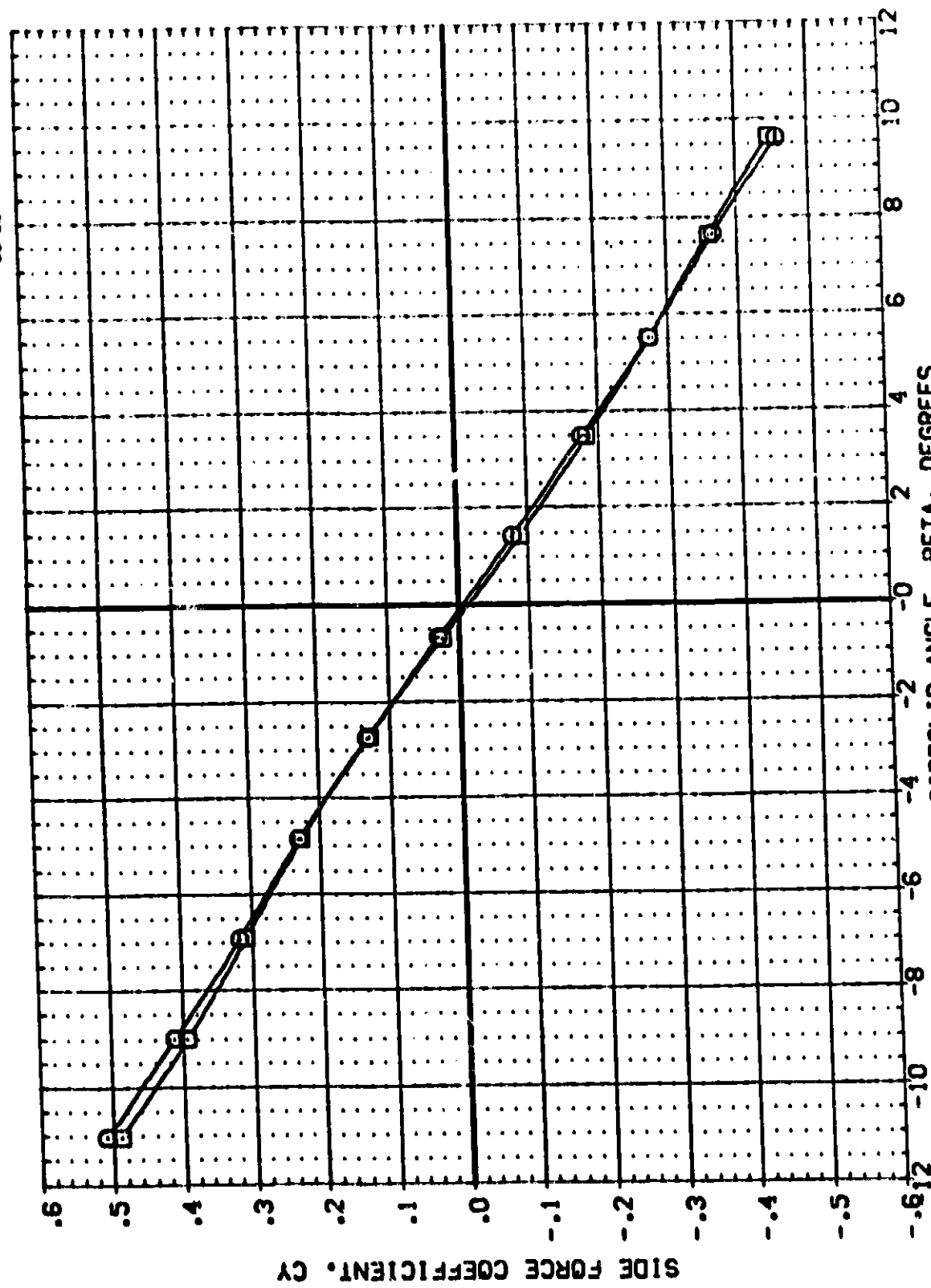
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(B)MACH = 0.90



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081002) H57C 566 (1A31F) MOR 0074 LV 03 TS S3
 (081010) H57C 566 (1A31F) MOR 0074 LV 03 TS S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.158 SQ. IN
 .500 .000 .000 BREF 5.313 IN.
 XPRP 2.542 IN.
 YPRP .000 IN.
 ZPRP .000 IN.
 SCALE .004

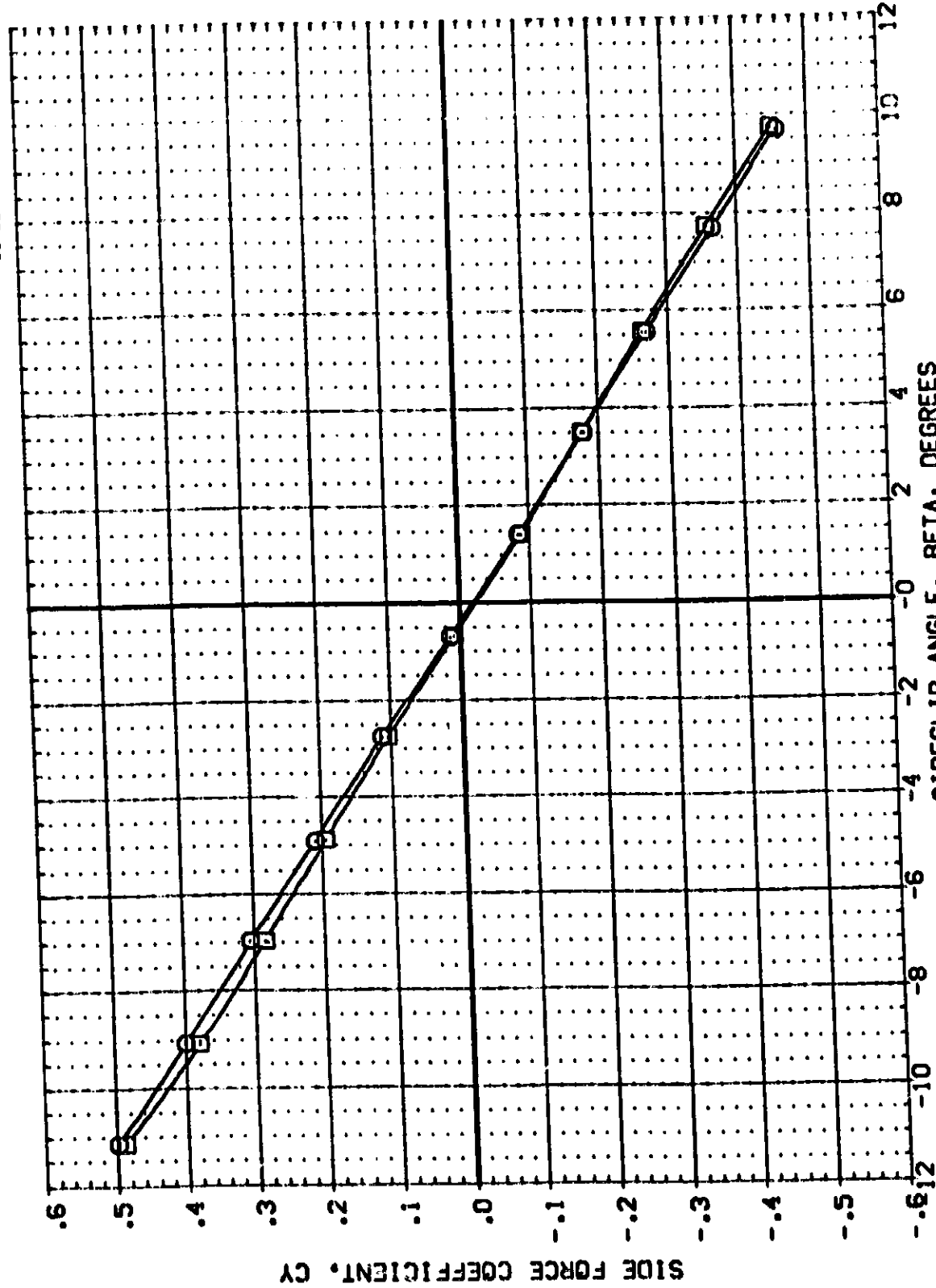


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1002) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (DB1010) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.189
 .500 .000 .000 LREF 5.313
 .000 .000 .000 BREF 5.313
 .000 .000 .000 YPRD 2.548
 .000 .000 .000 ZPRD 1.000
 .000 .000 .000 SCALE 1.000



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

COMACH = 1.25

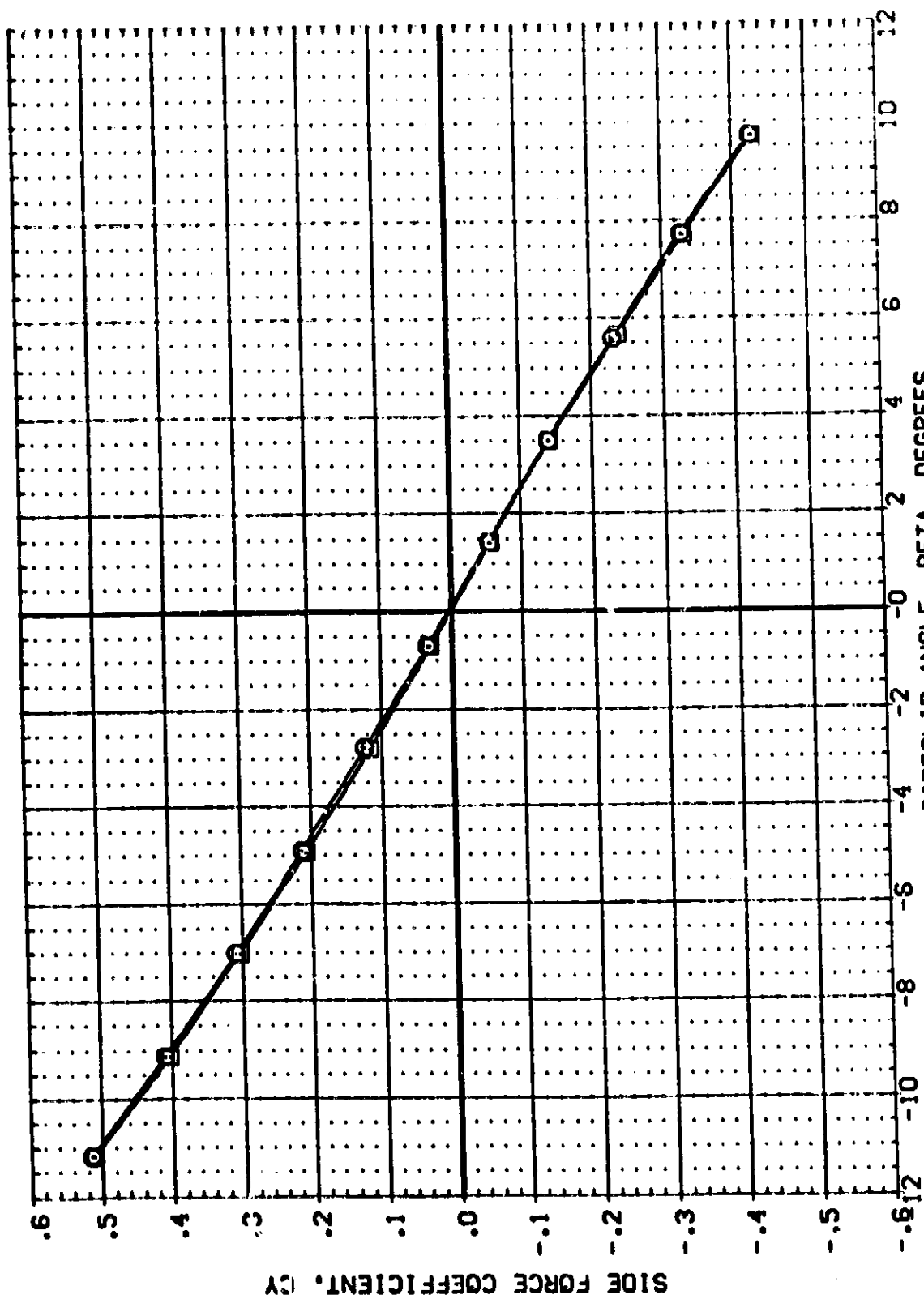
DATA SET SYMBOL: (D81002) (D8101C)

CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) XCR 0074 LV 03 19 S3
MSFC 566 (1A31F) XCR 0074 LV 03 19 S3

ORBITAL: X-SRB .500 .500
DELTA Z .136 .136
RUDDER .000 .000

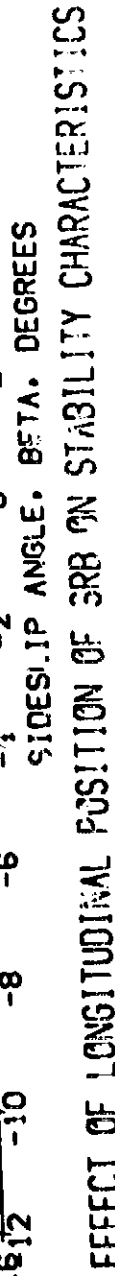
REFERENCE INFORMATION: SREF 8.198
LREF 9.313
BREF 9.313
XAPP 2.549
YAPP .000
ZAPP .000
SCALE .004

SG. IN: 17.2222



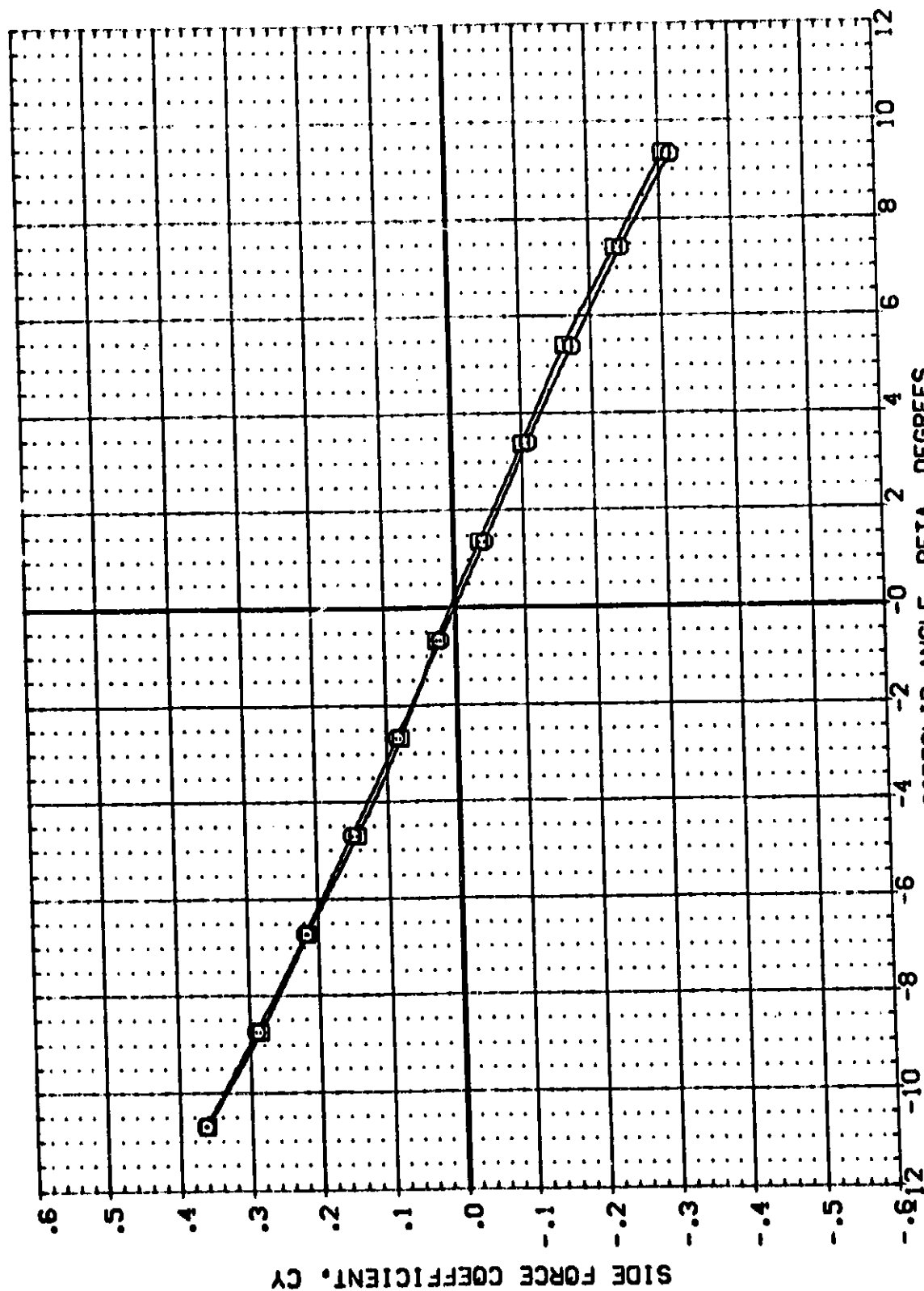
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

CEMACH = 1.46

[illegible]
$$= \text{HCVN}(F) \cdot 1.96$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORIGIN X-SRB DELTAZ RUDDER REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTAZ	RUDDER	REFERENCE INFORMATION
(DB1712)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF 6.199
(DB1010)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.400	.136	.000	LREF 5.313
						BREF 5.313
						XPRP 2.549
						YPRP .000
						ZPRP .000
						SCALE .004

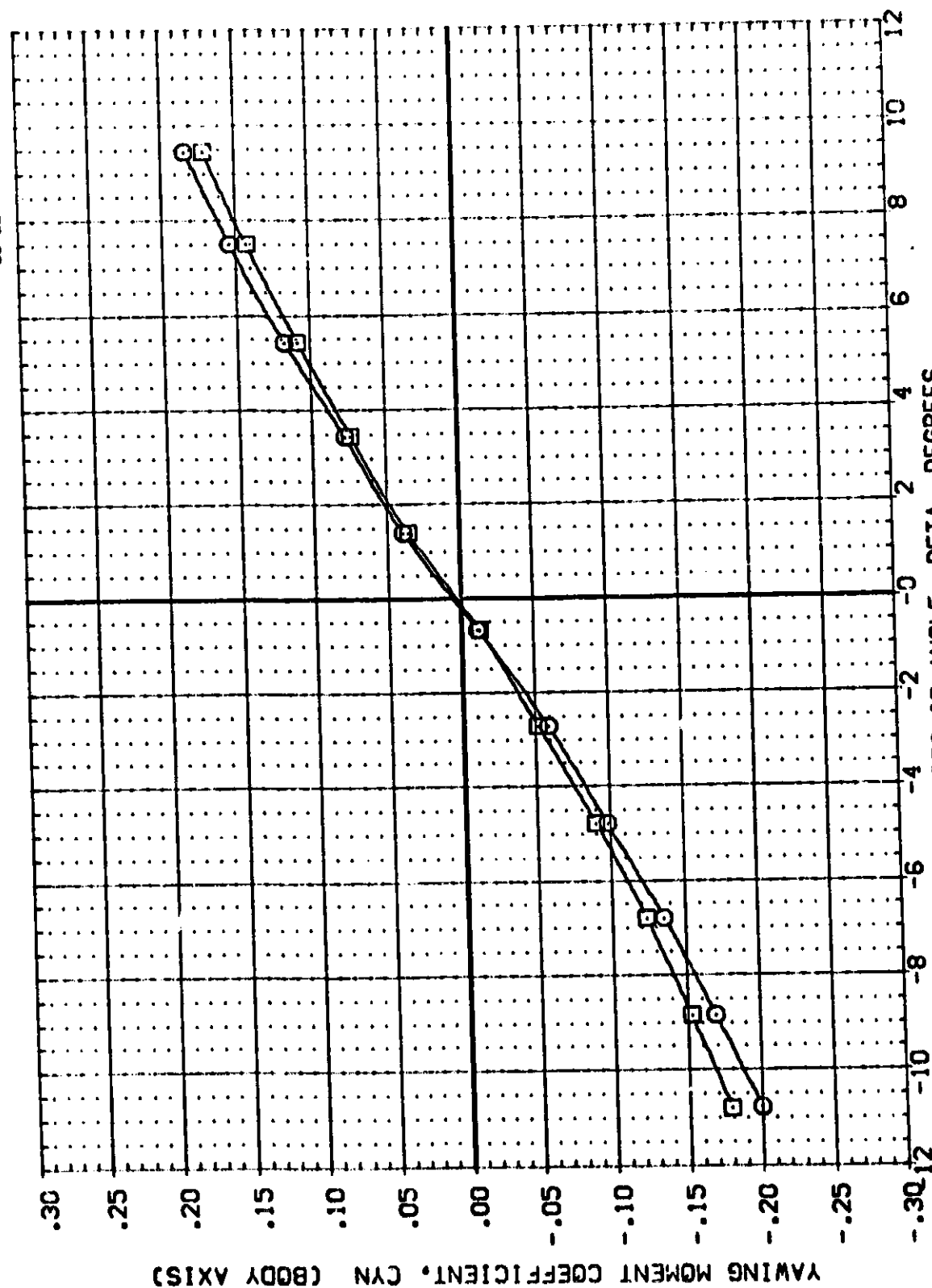


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (281002) 0 MFC S66 (1A31F) MCR 0074 LV 03 T9 S3
 (281010) 0 MFC S66 (1A31F) MCR 0074 LV 03 T9 S3

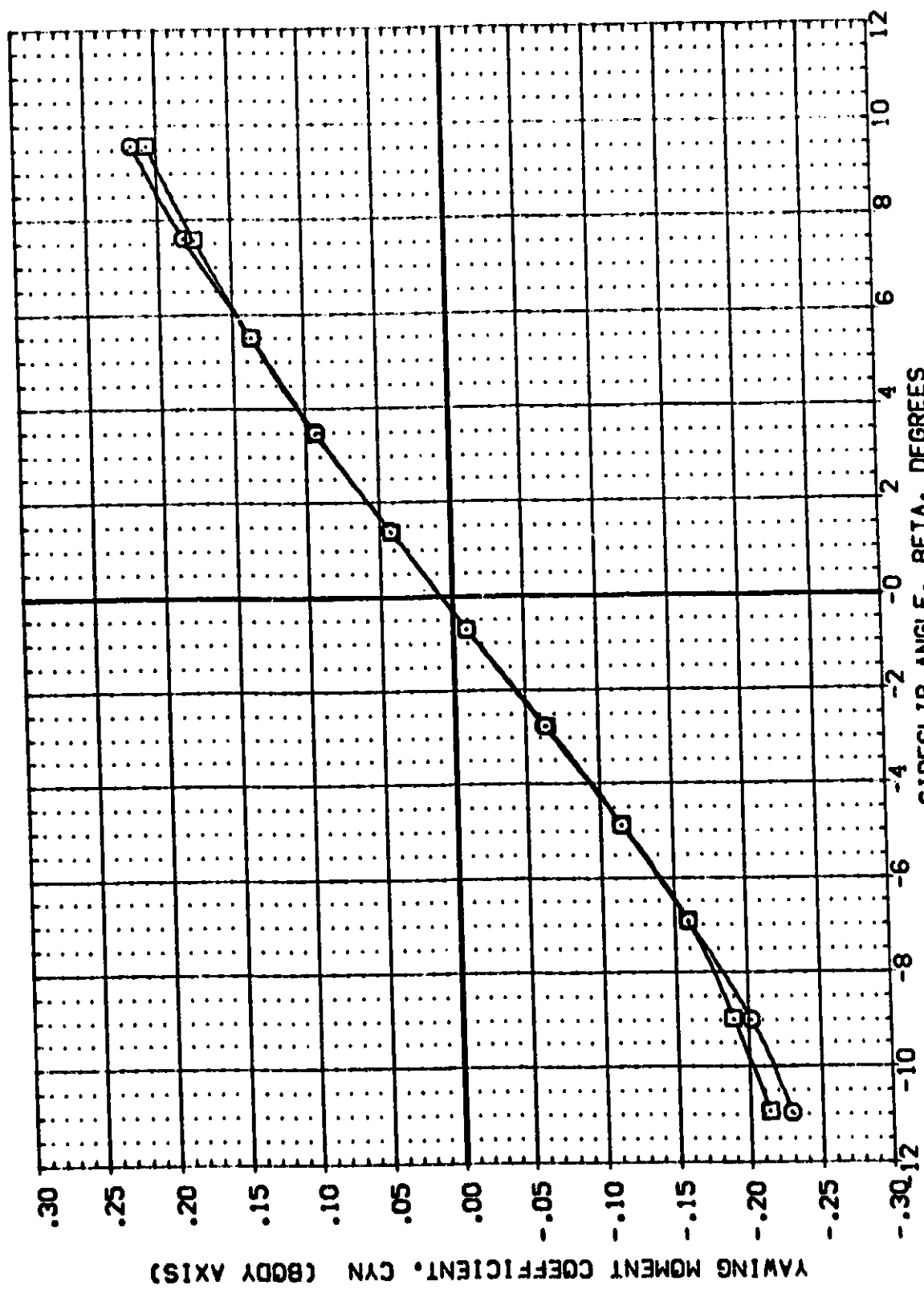
ORBITAL X-SR9 DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198
 .500 .000 .000 LREF 5.313
 .500 .000 .000 BREF 5.313
 .500 .000 .000 XMRP 2.548
 .500 .000 .000 YMRP .000
 .500 .000 .000 ZMRP .000
 .500 .000 .000 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

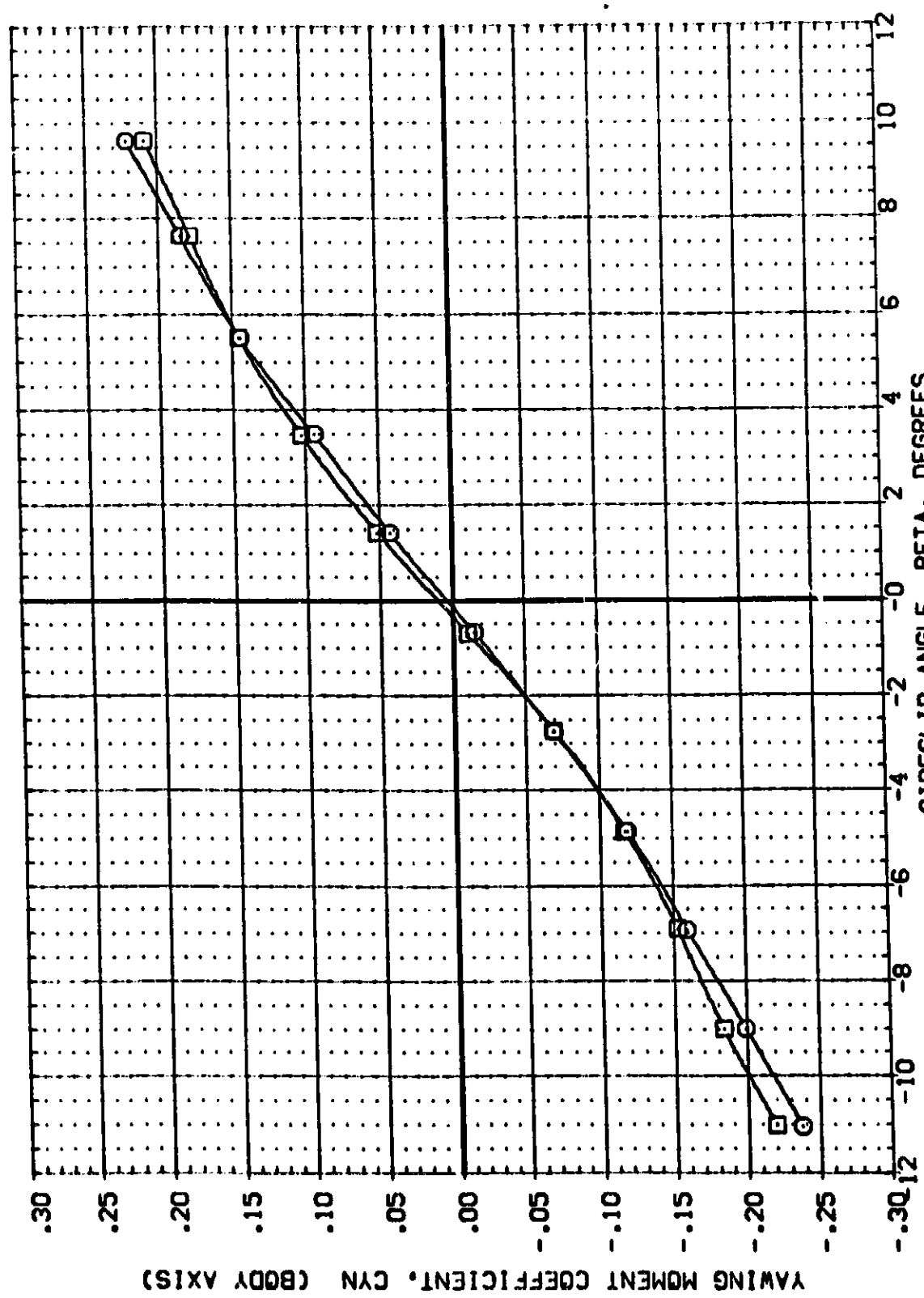
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORIGIN		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
(081002)	Q	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.000	.000	.000	.136	.000	SREF	6.199	50. IN.	
(081010)	Q	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.400	.000	.000	.136	.000	LREF	5.313	IN.	
										BREF	5.313	IN.	
										XMRP	2.540	IN.	
										YMRP	.000	IN.	
										ZMRP	.000	IN.	
										SCALE	.004		



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

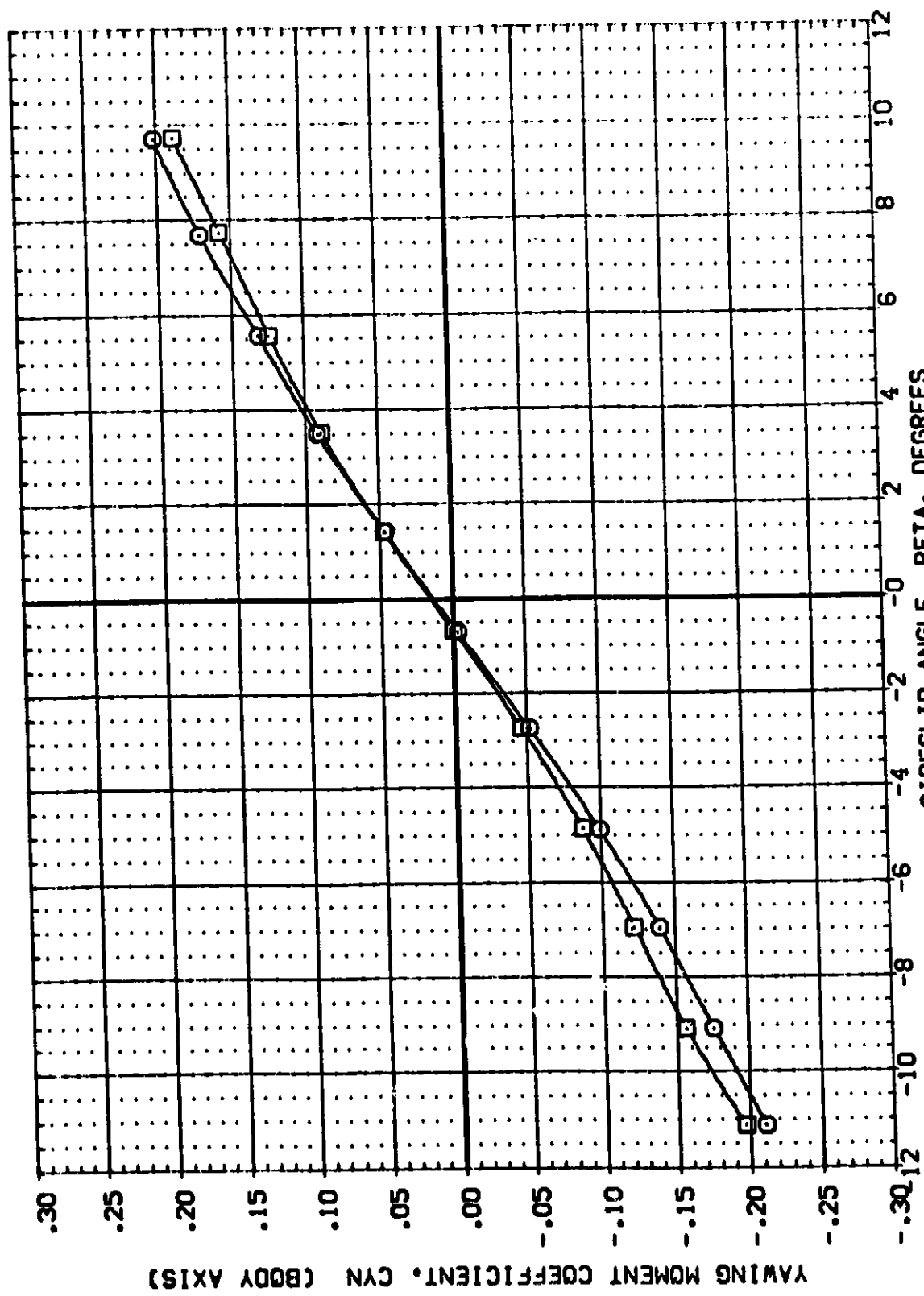
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		DELTA Z		RUDDER		REFERENCE INFORMATION	
[081002]	[081010]	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.500	.000	.136	.000	SREF	5.106	50. IN
		MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.400	.400	.000	.136	.000	LREF	5.313	50. IN
									BREF	5.313	50. IN
									XMRP	2.548	50. IN
									YMRP	.000	50. IN
									ZMRP	.000	50. IN
									SCALE	.001	50. IN



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS



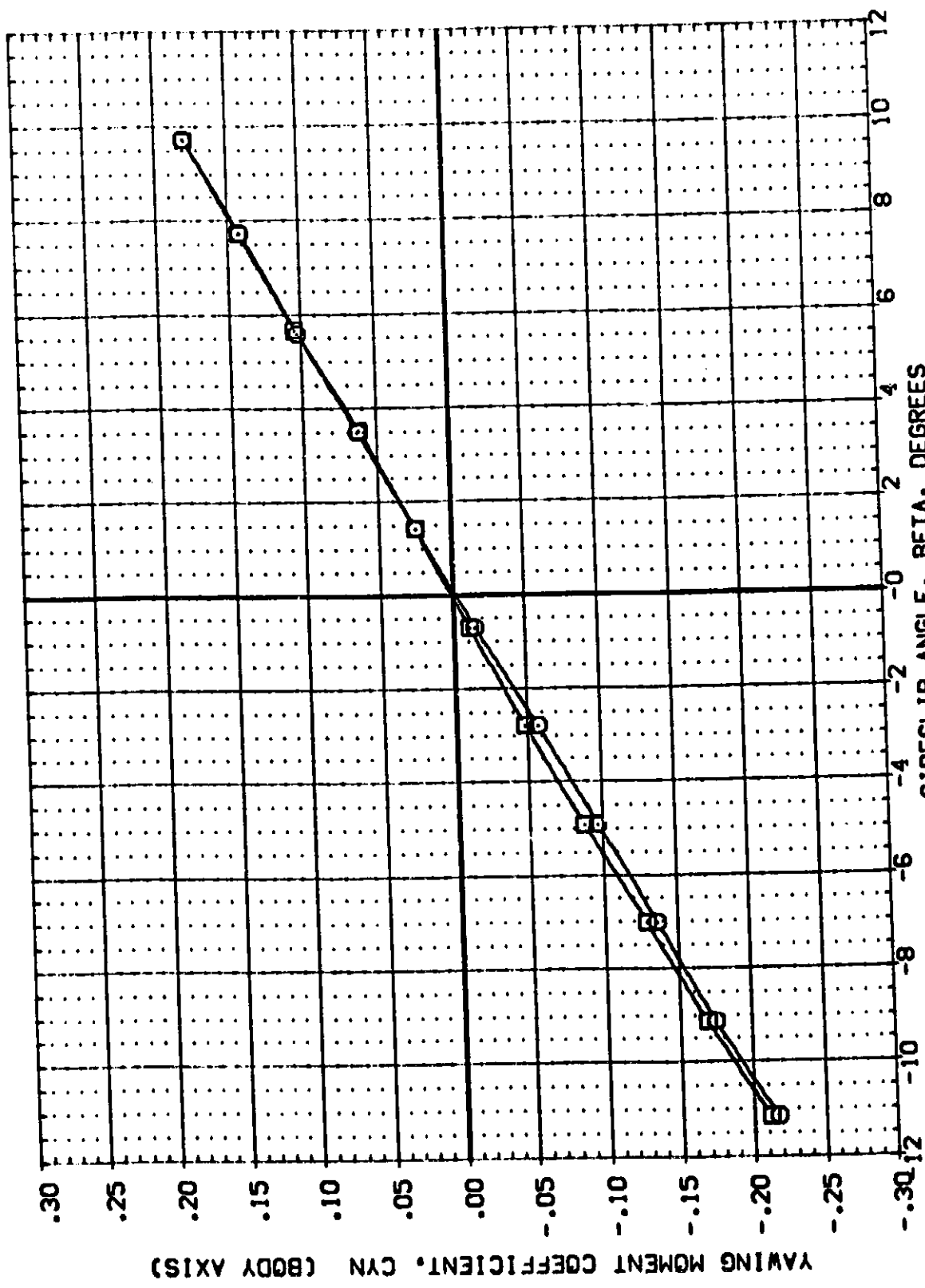
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
(DB1002)	□	MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.000	.000	.000	.136	.000	SREF	6.198	SO.	IN
(DB1010)	○	MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.400	.000	.000	.136	.000	LREF	5.313	IN.	IN.
										BREF	5.313	IN.	IN.
										XMRP	2.548	IN.	IN.
										YMRP	.000	IN.	IN.
										ZMRP	.000	IN.	IN.
										SCALE	.001		



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(O)MACH = 1.25

DATA SET SYMBO	CONFIGURATION DESCRIPTION	ORBIT	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION	SG IN
(08:002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(08:010)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LREF	5.313
						BREF	5.313
						XMRP	2.549
						YMRP	.000
						ZMRP	.000
						SCALE	.004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

DATA SET SYMBOL: (DB1002) (DB1010)

CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 S3 MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-568 DELTA Z RUDDER REFERENCE INFORMATION SQ. IN.

.500 .000 .000 SREF 6.198 IN.

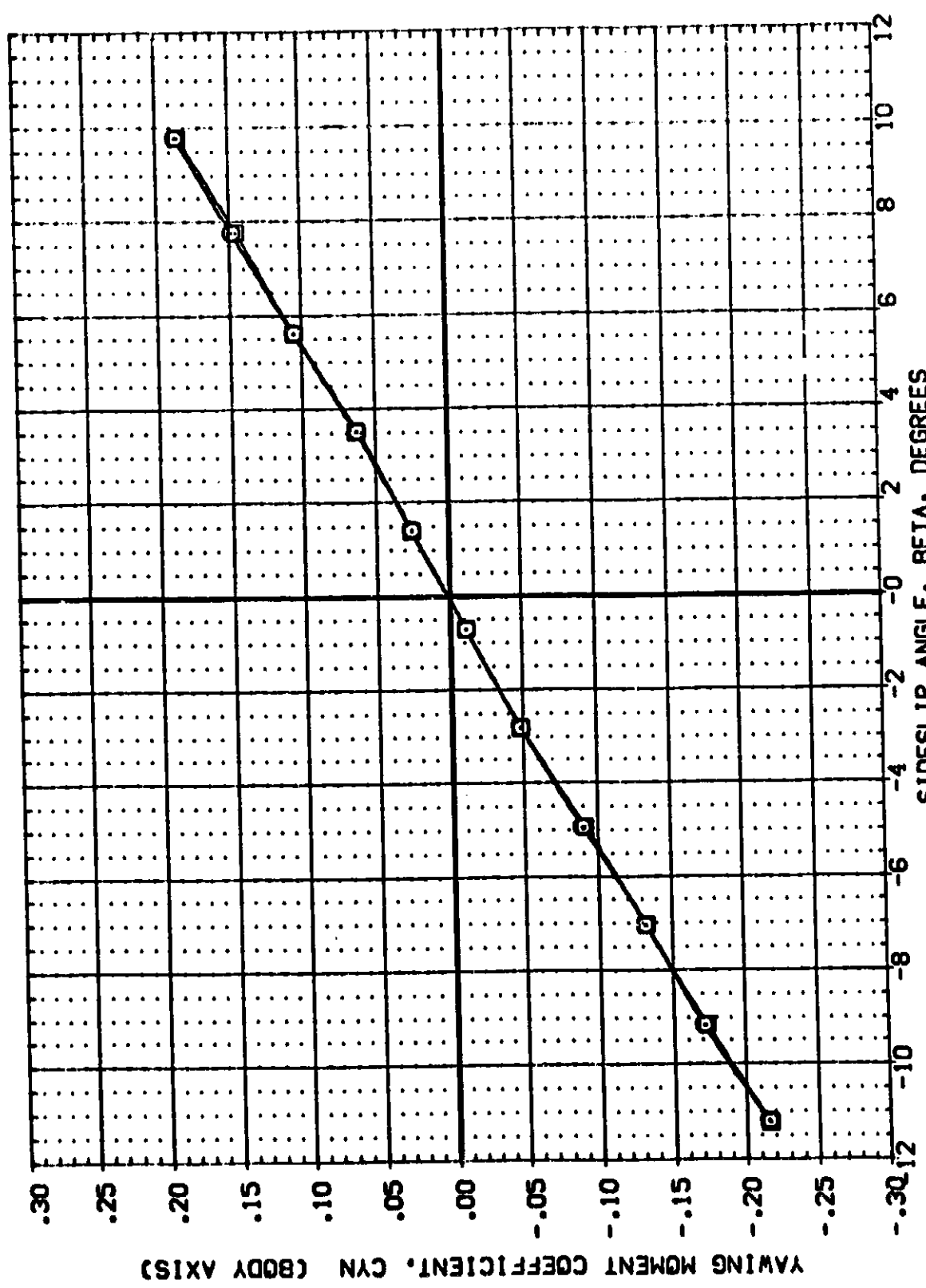
.500 .000 .000 LREF 5.313 IN.

XMRP 2.549 IN.

YMRP .000 IN.

ZMRP .000 IN.

SCALE .001



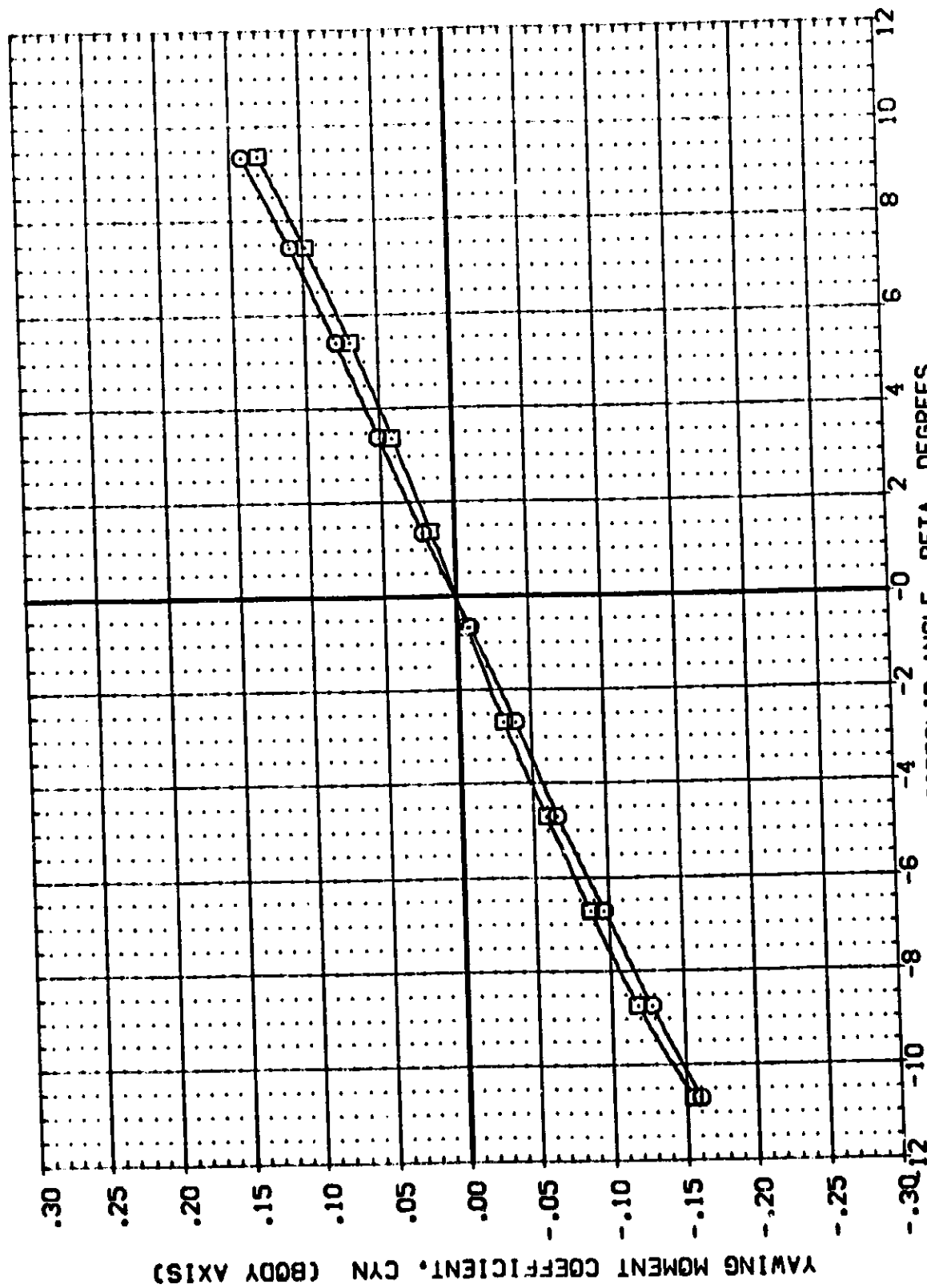
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: ☐ MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (08:002) ☐ MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (08:010)

CONFIGURATION DESCRIPTION:

ORIGIN X-SRB DELTA Z R-ORR

REFERENCE INFORMATION
 SREF 6.199 SO. IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XREF 2.546 IN.
 YREF .000 IN.
 ZREF .000 IN.
 SCALE .004



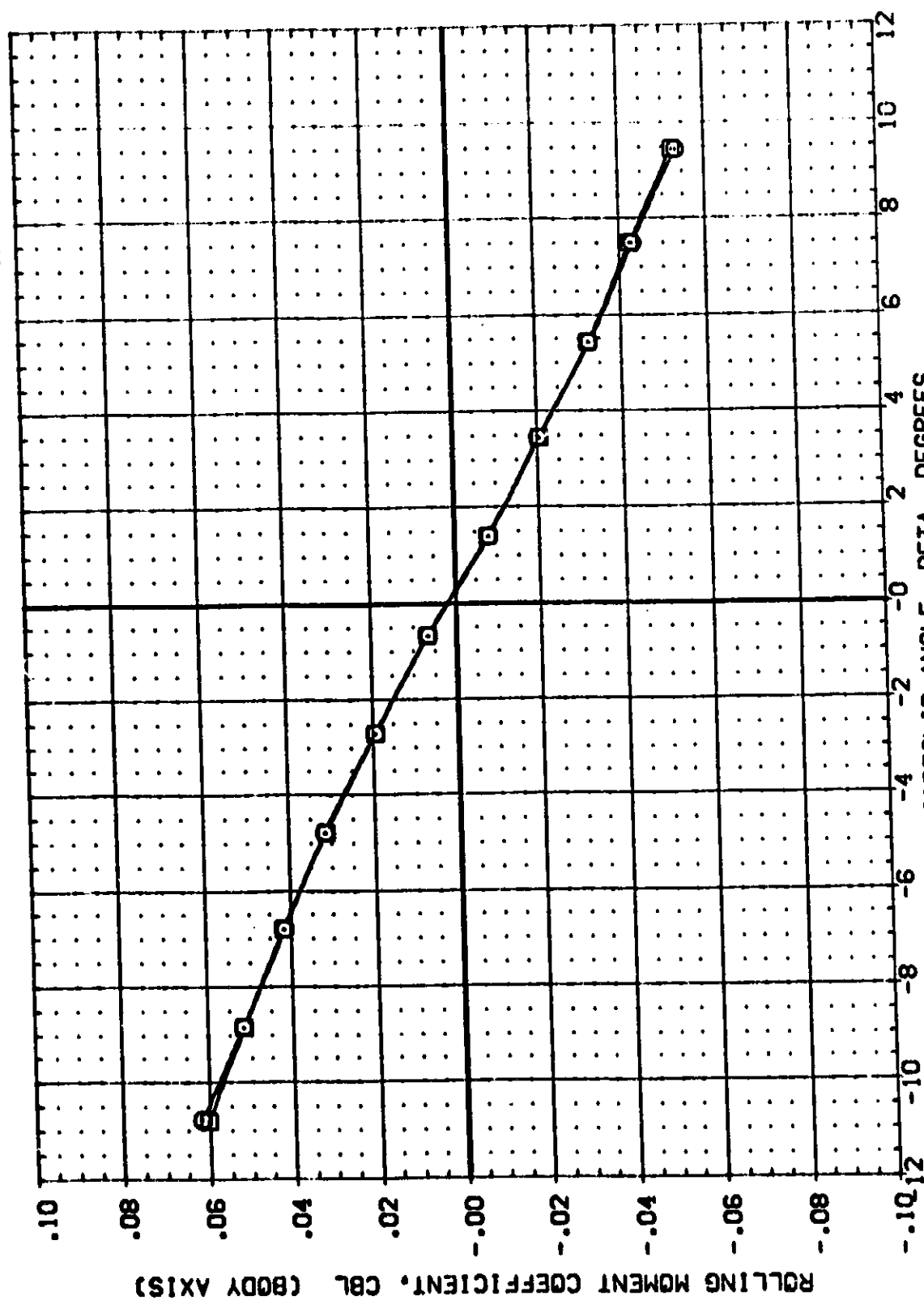
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(G)MACH = 4.96



DATA SET SYMBOL CONFIGURATION DESCRIPTION ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION

(081002)	M57C 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081010)	M57C 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LREF 5.313
						BREF 5.313
						YMRP 2.543
						ZMRP .000
						SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

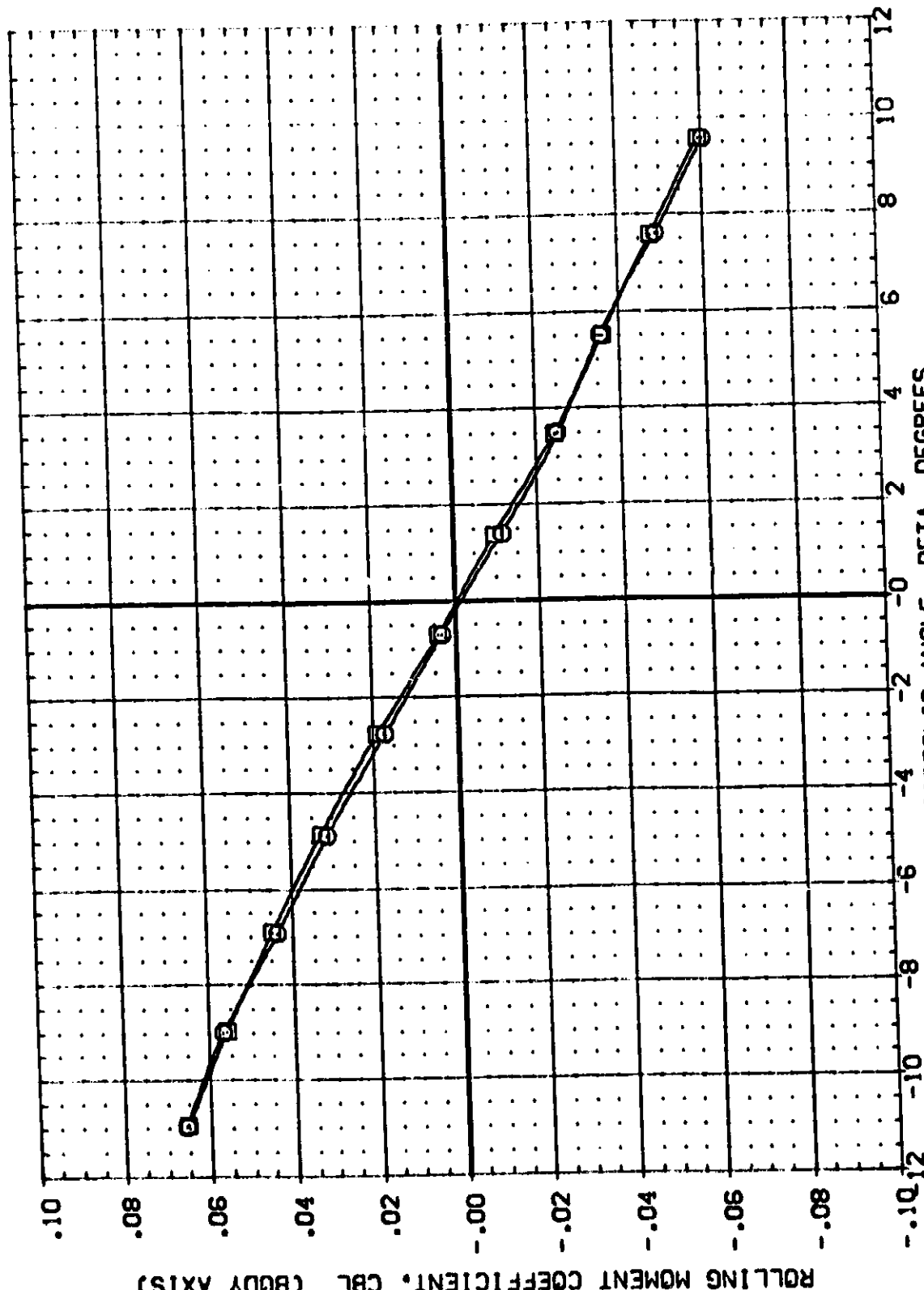
(A)MACH = 0.60

DATA SET SYMBOL: (D81002)
 (D81010)

CONFIGURATION DESCRIPTION
 MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3

ORBITING X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .136 .000

REFERENCE INFORMATION
 SREF 6.196
 LREF 3.313
 BREF 2.549
 XREF .000
 YREF .000
 ZREF .000
 SCALE .001



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(B)MACH = 0.90



DATA SET SYMBOL: (DB1002) (DB1010)
CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MSC 0074 LV 03 TS S3
MSC 566 (1A31F) MSC 0074 LV 03 TS S3

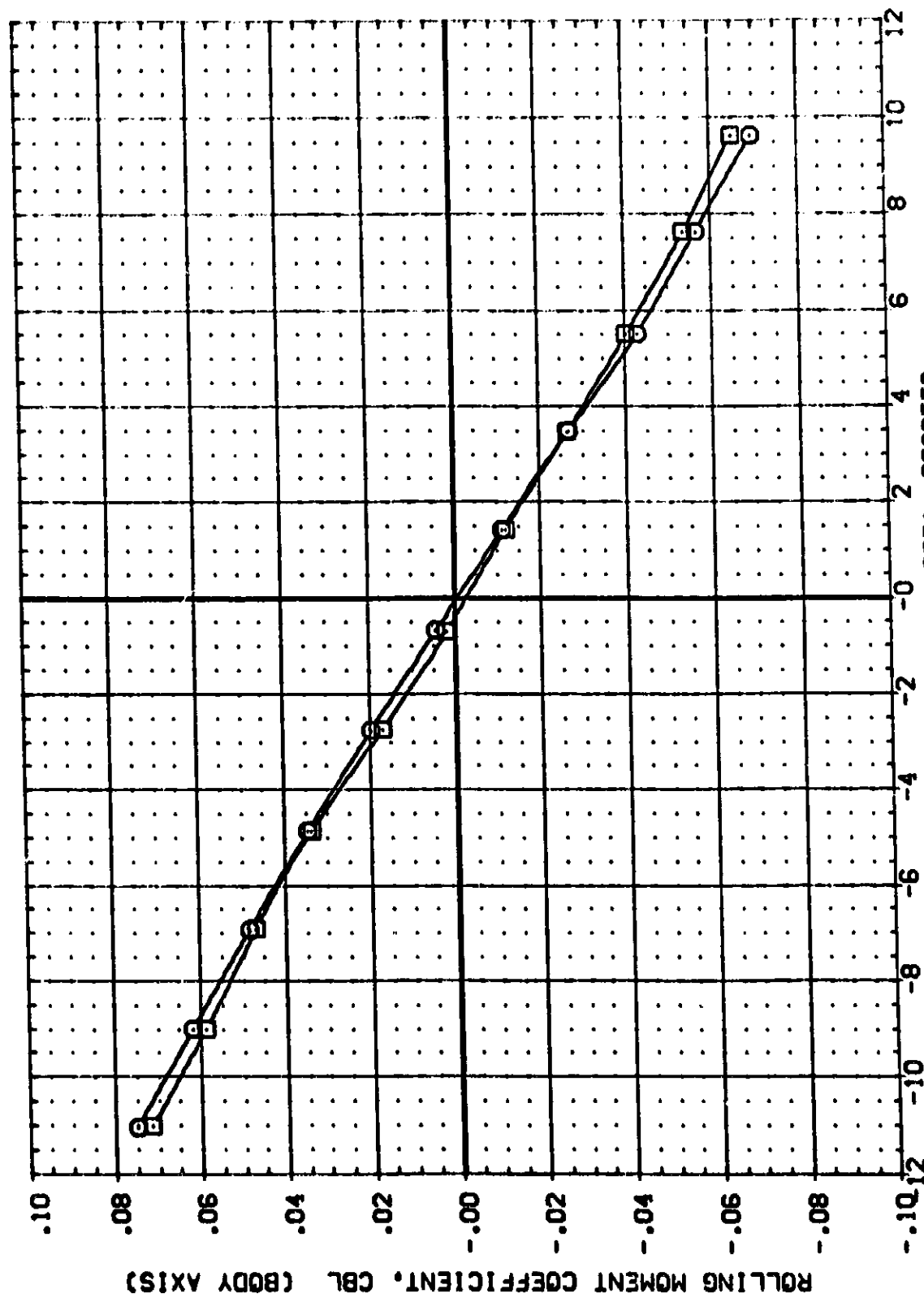
ORBIT: X-SRB: .000 .400
Y-SRB: .500 .500

DELTA Z: .136 .136

RUDER: .000 .000

REFERENCE INFORMATION:
SREF: 6.198
LREF: 5.313
BREF: 5.313
XMRP: 2.549
YMRP: .000
ZMRP: .000
SCALE: .004

SC: IN
IN: IN
IN: IN
IN: IN
IN: IN



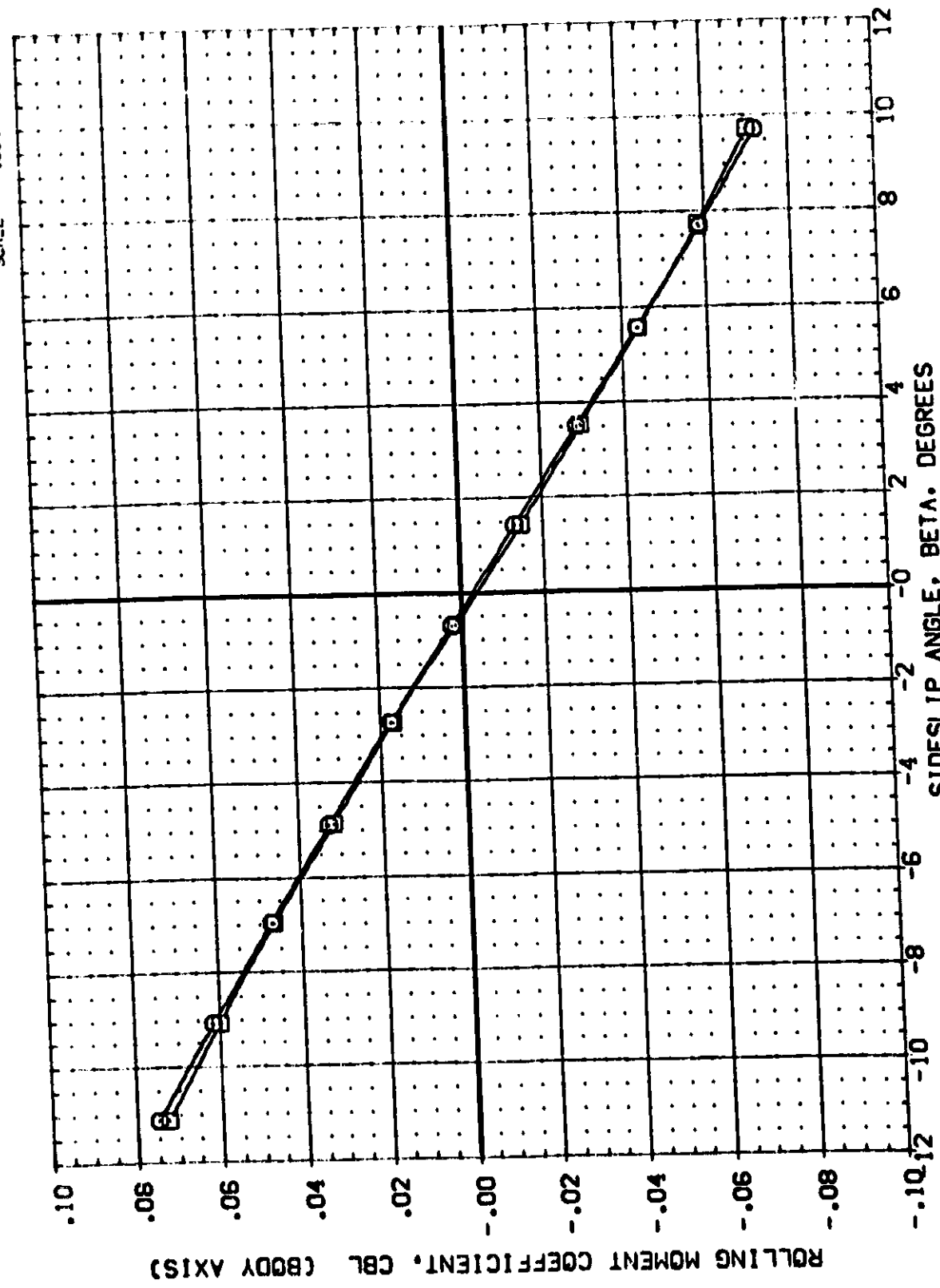
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL: (081002)
 (081010)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTAZ RUDDER
 .500 .000 .000
 .500 .400 .000

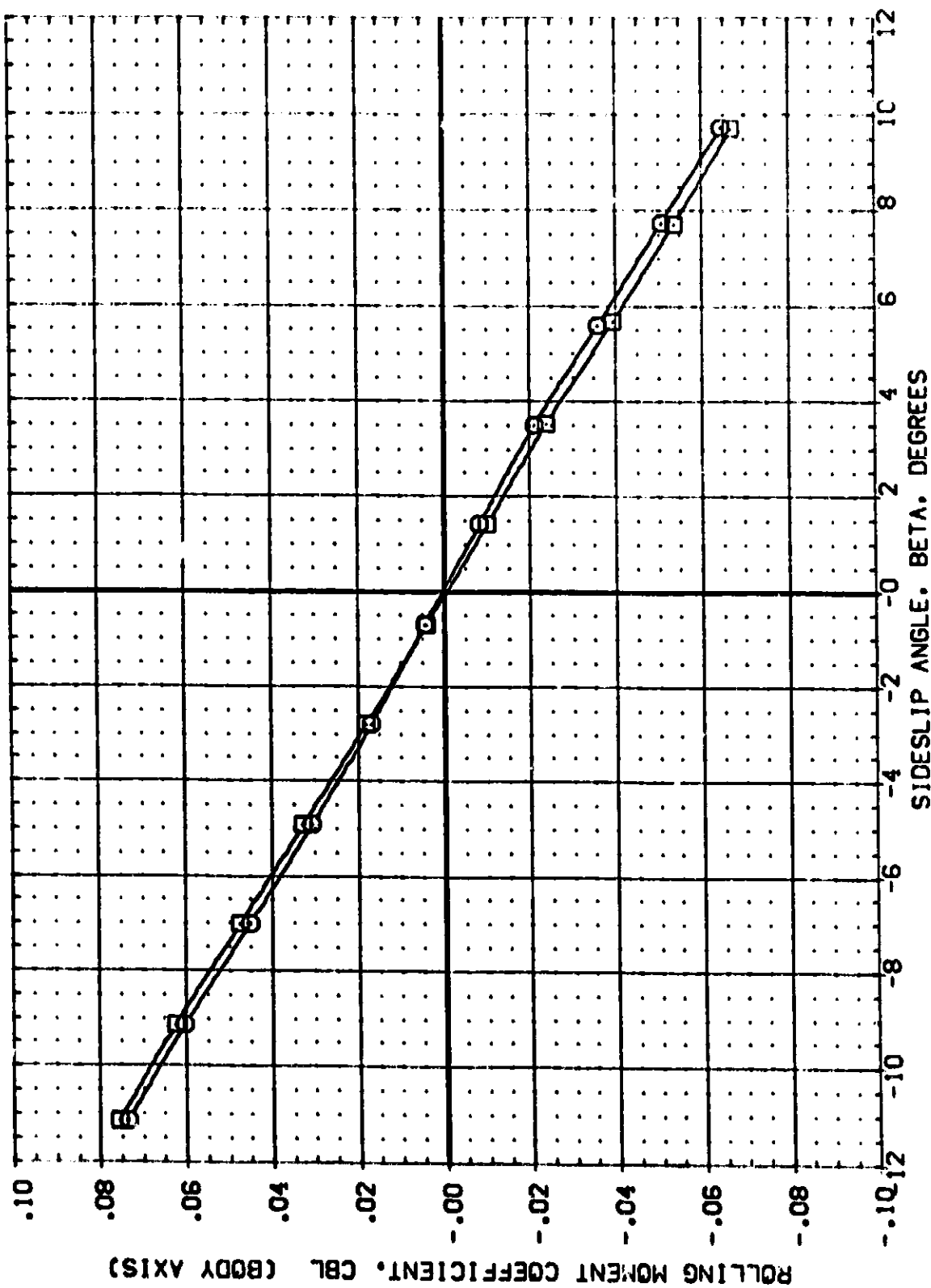
REFERENCE INFORMATION:
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XREF 2.549
 YREF .000
 ZREF .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(0)MACH = 1.25

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(081010)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.400	.136	.000	LREF	5.313
						BREF	5.313
						XMRP	2.549
						YMRP	.000
						ZMRP	.000
						SCALE	.004

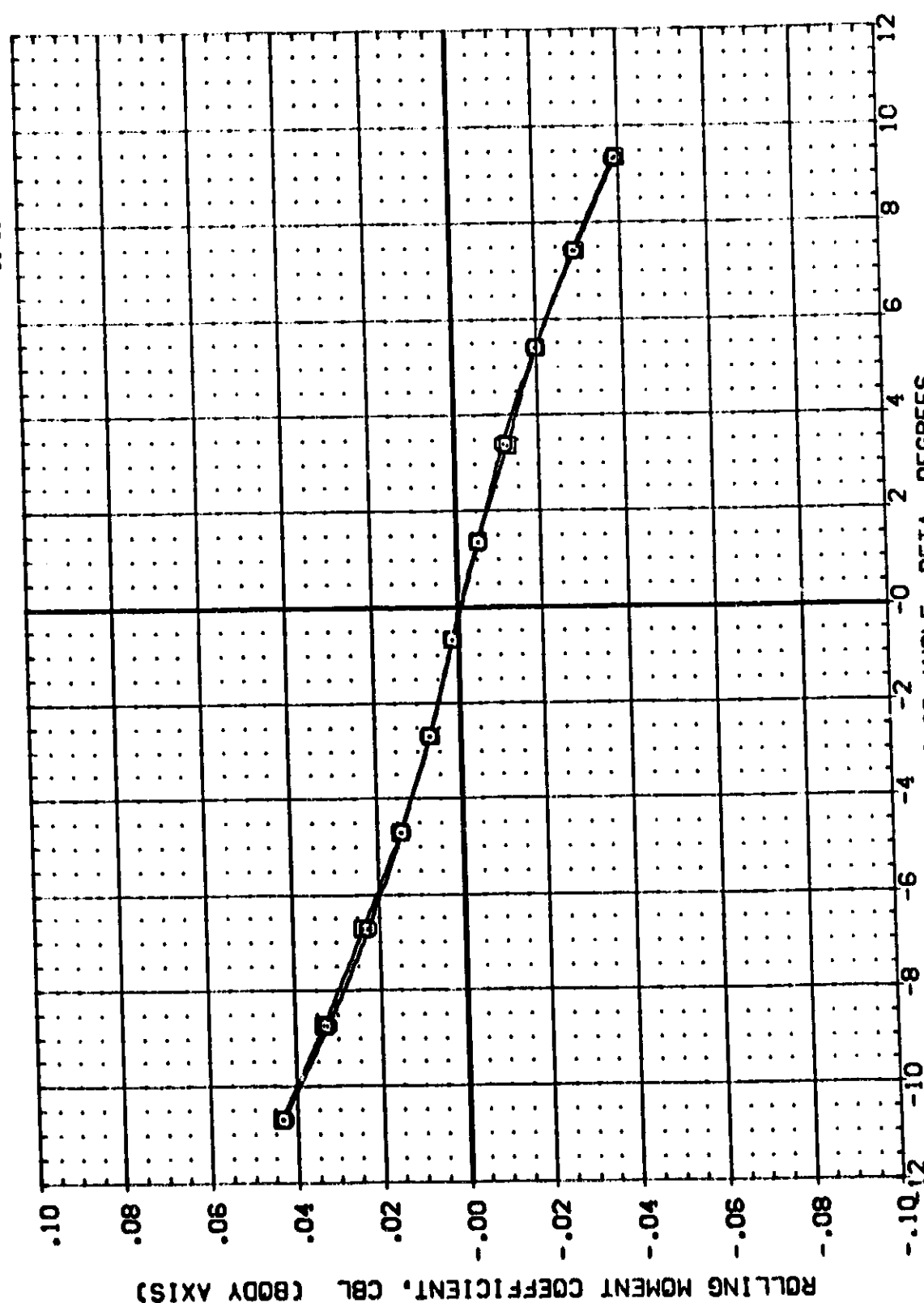


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

DATA SET SYMBOL: [081002] [081010]
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.198 50. IN
 .500 .000 .000 LREF 5.313 IN.
 .500 .000 .000 BREF 5.313 IN.
 .500 .000 .000 XMRP 2.549 IN.
 .500 .000 .000 YMRP .000 IN.
 .500 .000 .000 ZMRP .000 IN.
 .500 .000 .000 SCALE .004



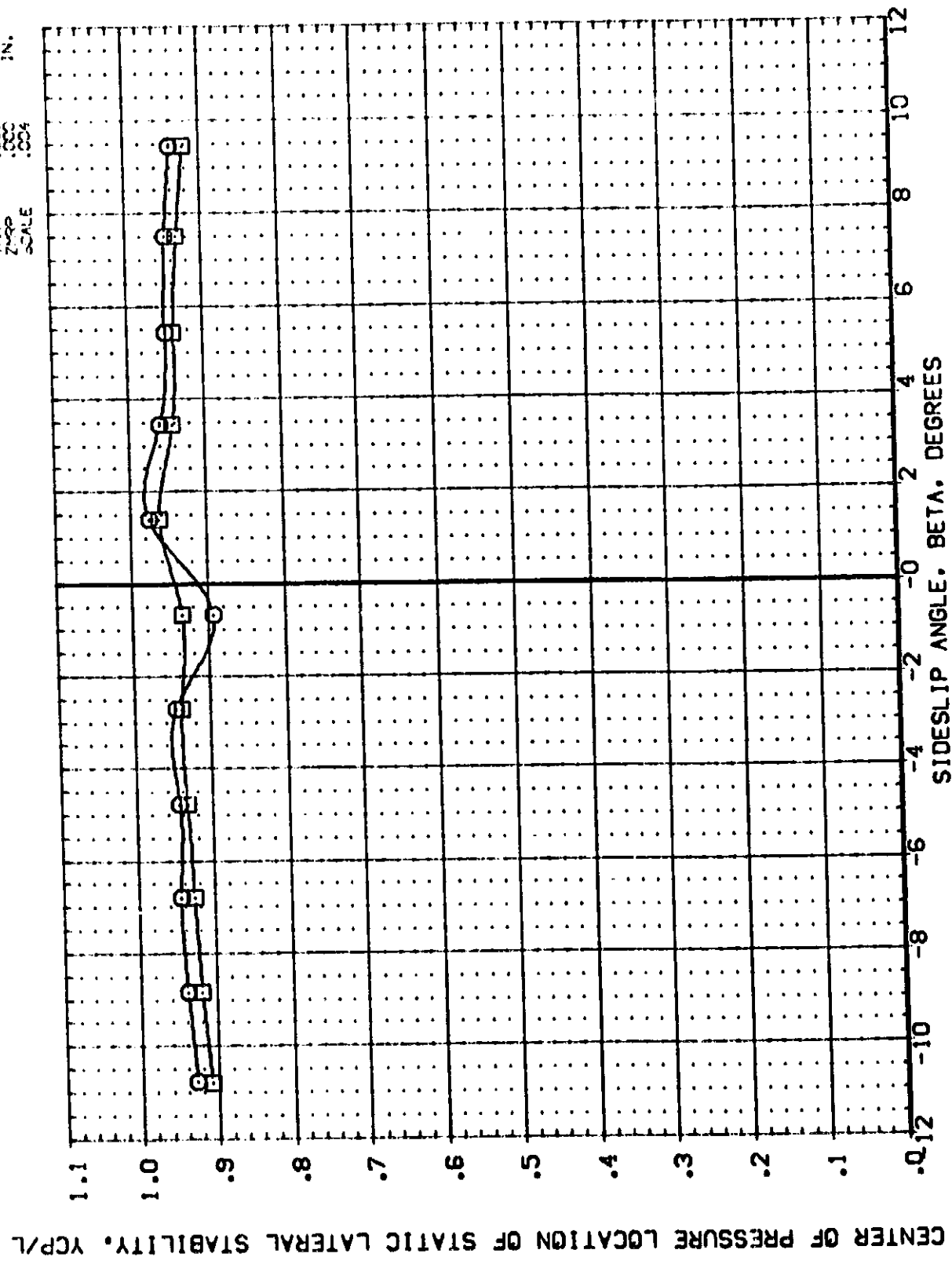
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1002) MSC 566 (1A31F) MCR 0074 LV 03 TS S3
 (DB1012) MSC 566 (1A31F) MCR 0074 LV 03 TS S3

ORBITAL X-SRS DELTA Z RUDDER
 .500 .000 .000
 .500 .400 .000

REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004



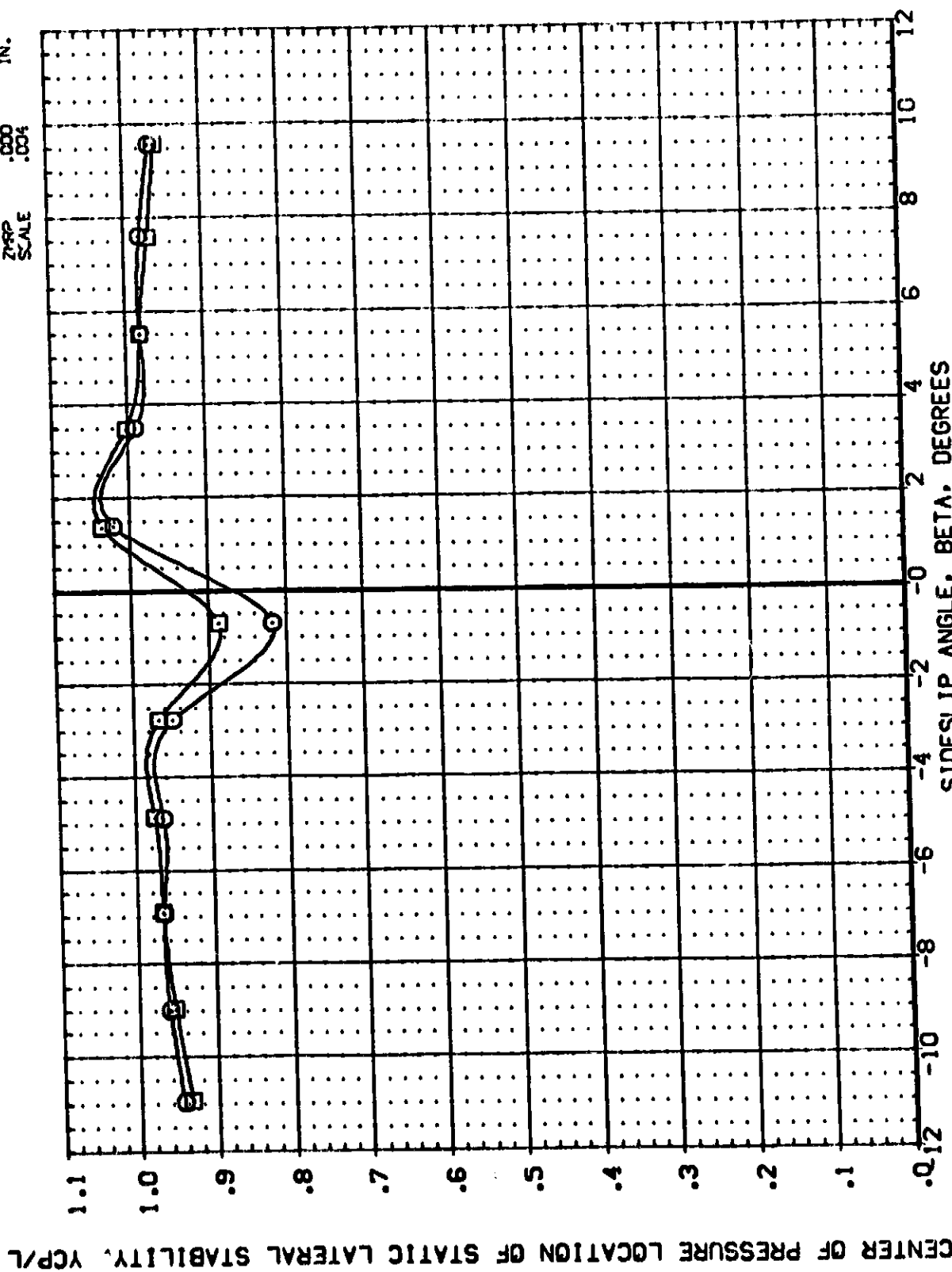
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL: (DB1002) (DB1010) CONFIGURATION DESCRIPTION: MFC 566 (1A31F) MCR 0074 LV 03 T9 S3 MFC 566 (1A31F) MCR 0074 LV 03 T9 S3

DRBINC X-SRB DELTAZ RUDDER REFERENCE INFORMATION

DRBINC	X-SRB	DELTAZ	RUDDER	SREF	50. IN
.500	.000	.136	.000	6.198	IN.
.500	.400	.136	.000	5.313	IN.
				2.549	IN.
				.000	IN.
				.000	IN.
				.004	IN.

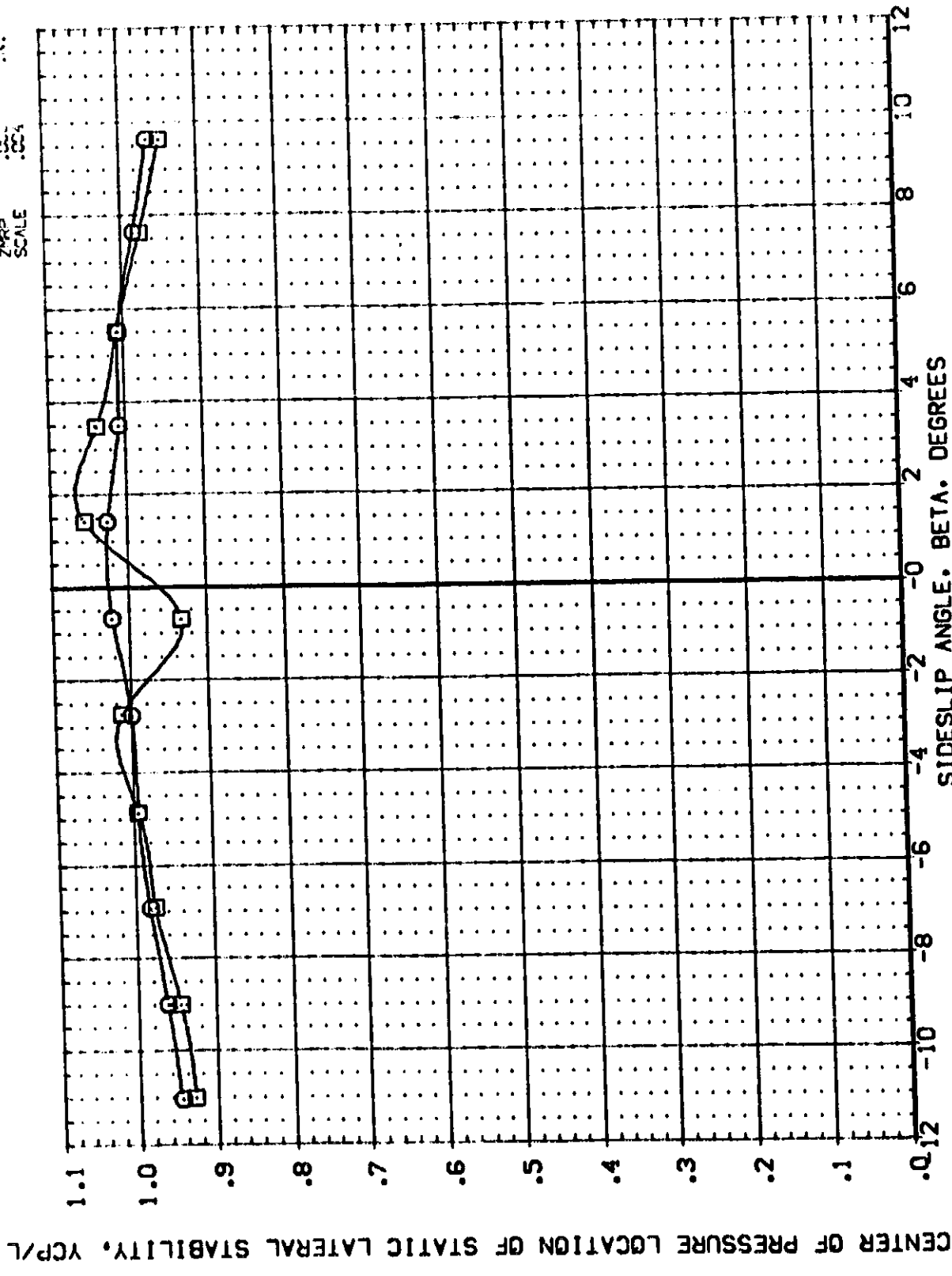


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C81002) ☐ MSFC 566 (1A31F) MCR 0074 LV 03 19 53
 (C81010) ☐ MSFC 566 (1A31F) MCR 0074 LV 03 19 53

ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.188
 .500 .136 .000 LREF 5.313
 .000 .136 .000 BREF 5.313
 XMRP 2.548
 YMRP .000
 ZMRP .000
 SCALE .004



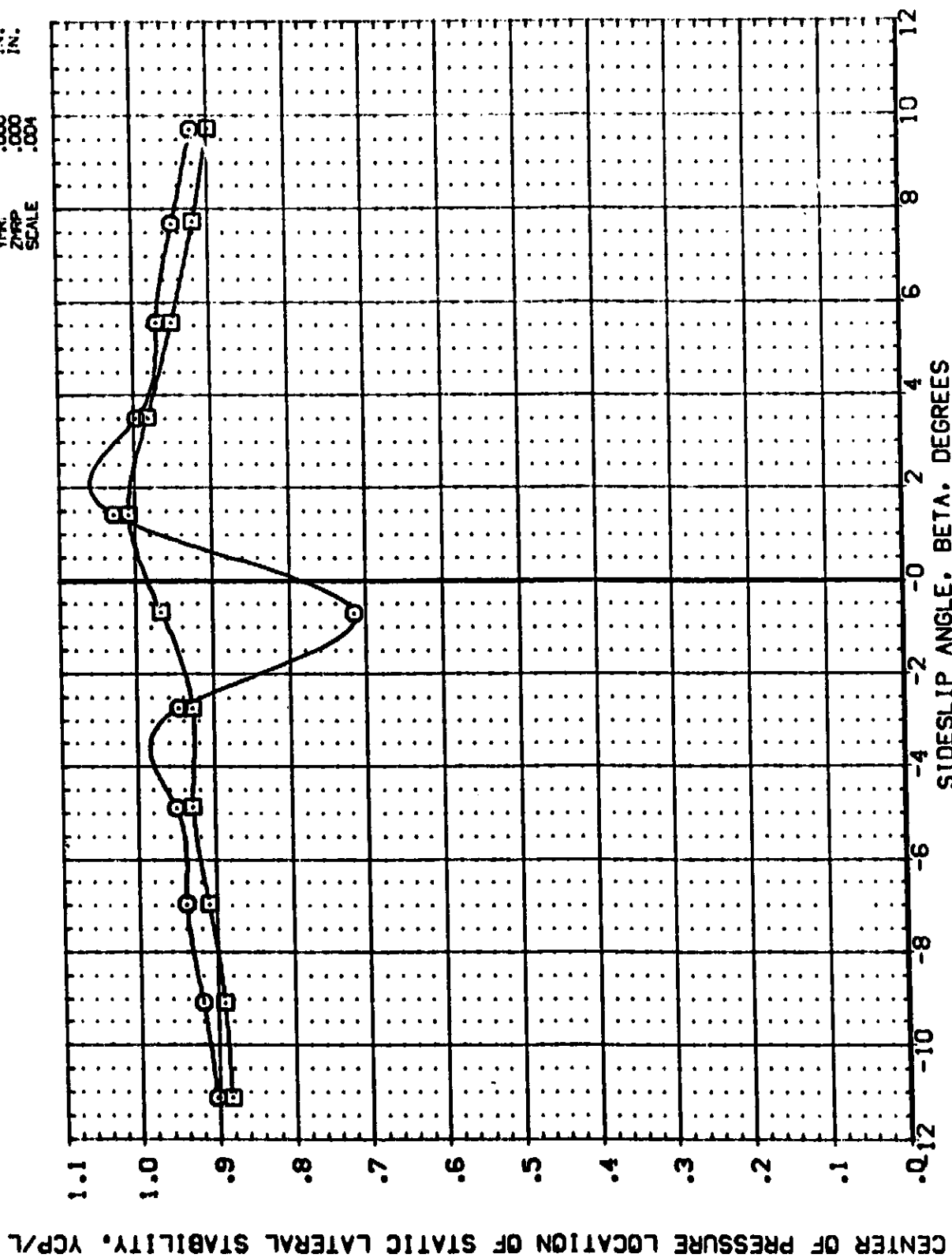
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION

ORGINC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
.500	.000	.136	.000	SREF 6.198
.500	.400	.136	.000	LREF 5.313
				BREF 5.313
				XMRP 2.549
				YMRP .000
				ZMRP .000
				SCALE .004

MSC 566 (1A31F) MCR 0074 LV 03 19 S3
 MSC 566 (1A31F) MCR 0074 LV 03 19 S3



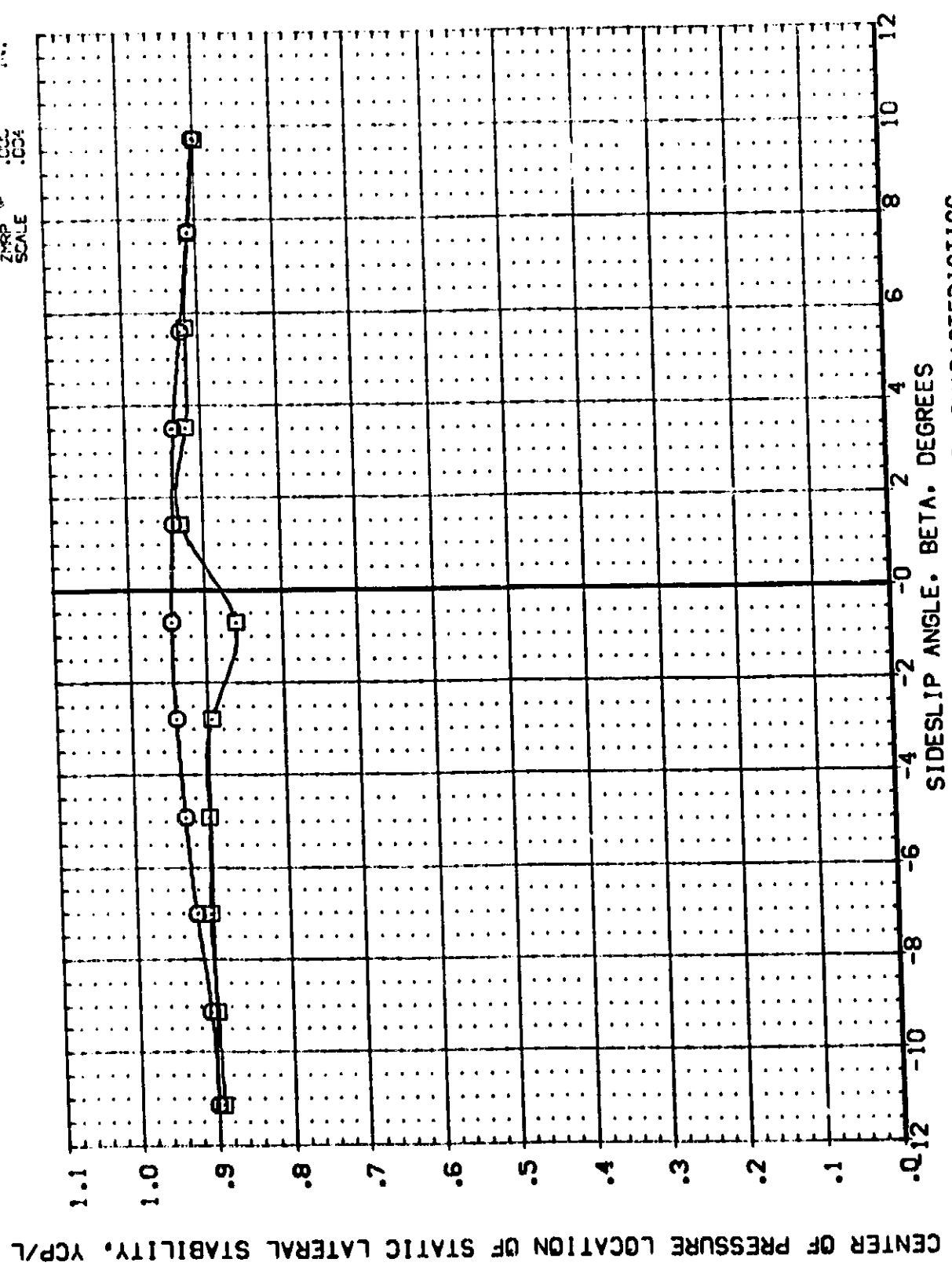
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(O)MACH = 1.25

DATA SET SYMBOL: (C81002) (C81010)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SB9 DELTAZ RUDDER
 .500 .000 .000
 .500 .136 .000
 .500 .136 .000

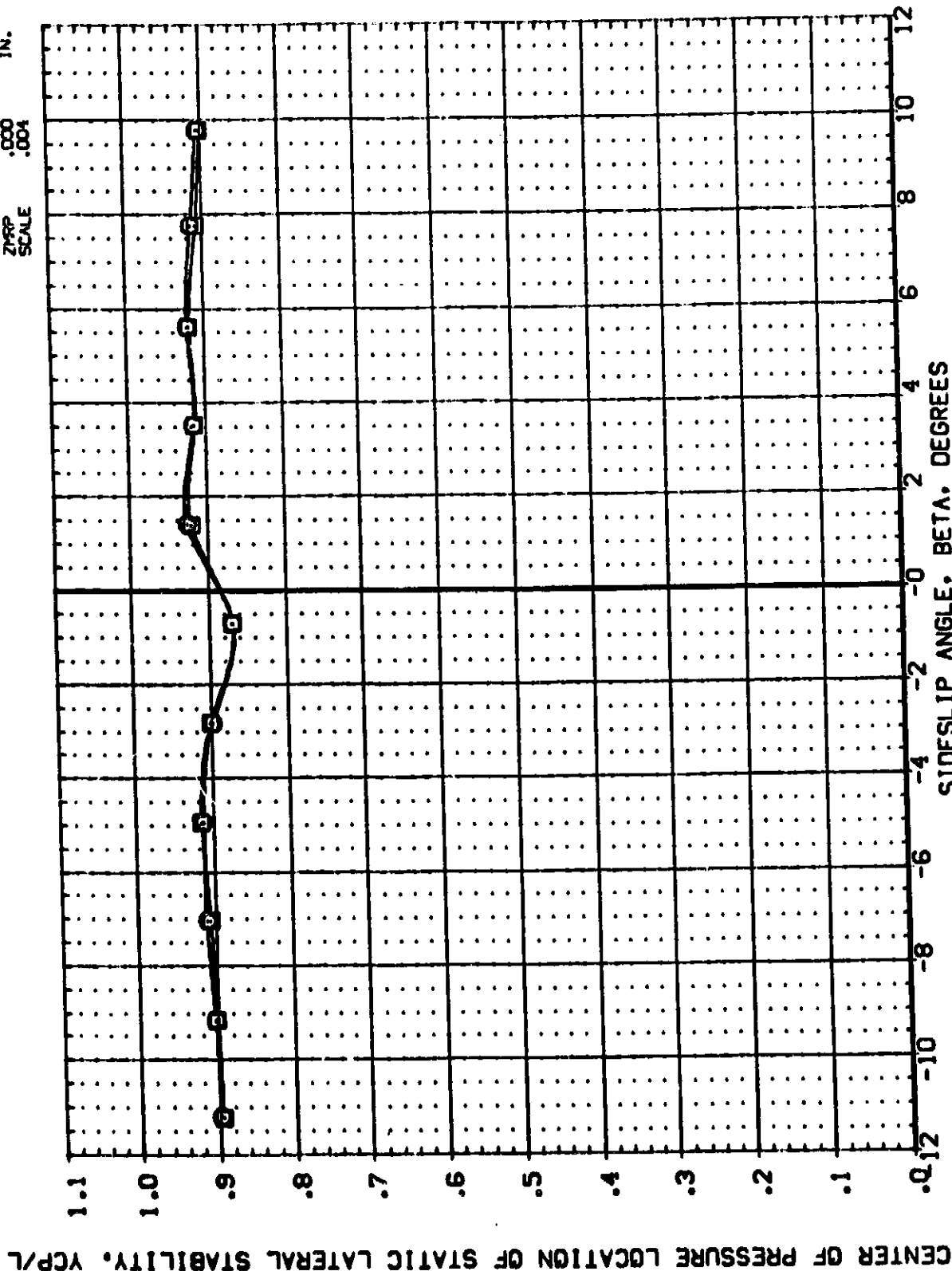
REFERENCE INFORMATION:
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XPROP 2.549
 YPROP .000
 ZPROP .000
 SCALE .001



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
(081002)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.000	.136	.000	SREF	5.198
(081010)	MSFC 566 (1A31F) MCR 0074 LV 03 19 53	.500	.400	.136	.000	LREF	5.313
						BREF	5.313
						YMRP	2.549
						ZMRP	.000
						SCALE	.004



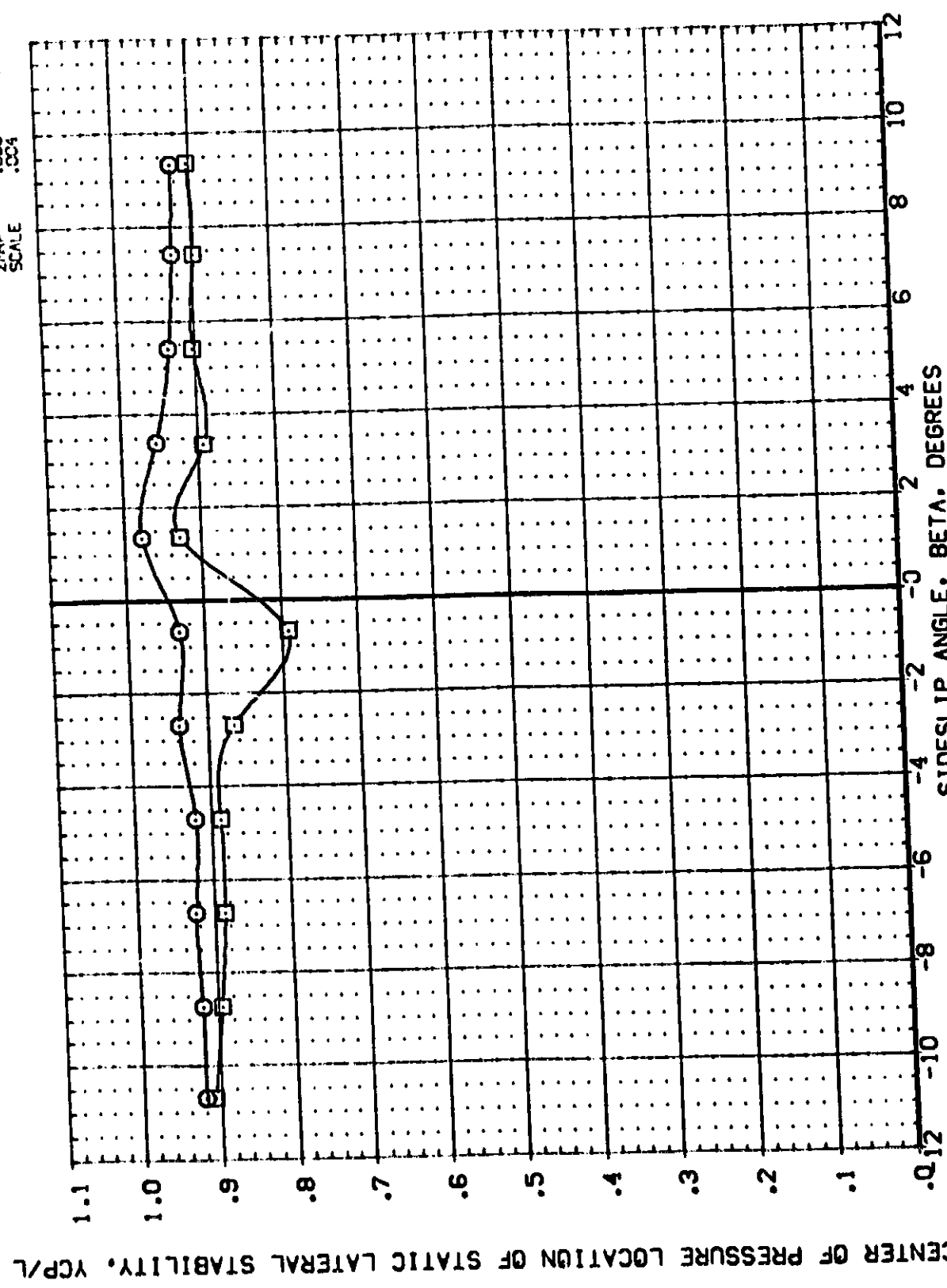
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL: DB10021
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBIT INC X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .400 .000

REFERENCE INFORMATION
 SREF 6.199
 LREF 5.313
 BREF 5.213
 XMRP 2.545
 YMRP .000
 ZMRP .000
 SCALE .004



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL: (DB1002) (DB1010)

CONFIGURATION DESCRIPTION: MSC 556 (1A31F) MCR 0074 LV 03 T9 S3
 MSC 556 (1A31F) MCR 0074 LV 03 T9 S3

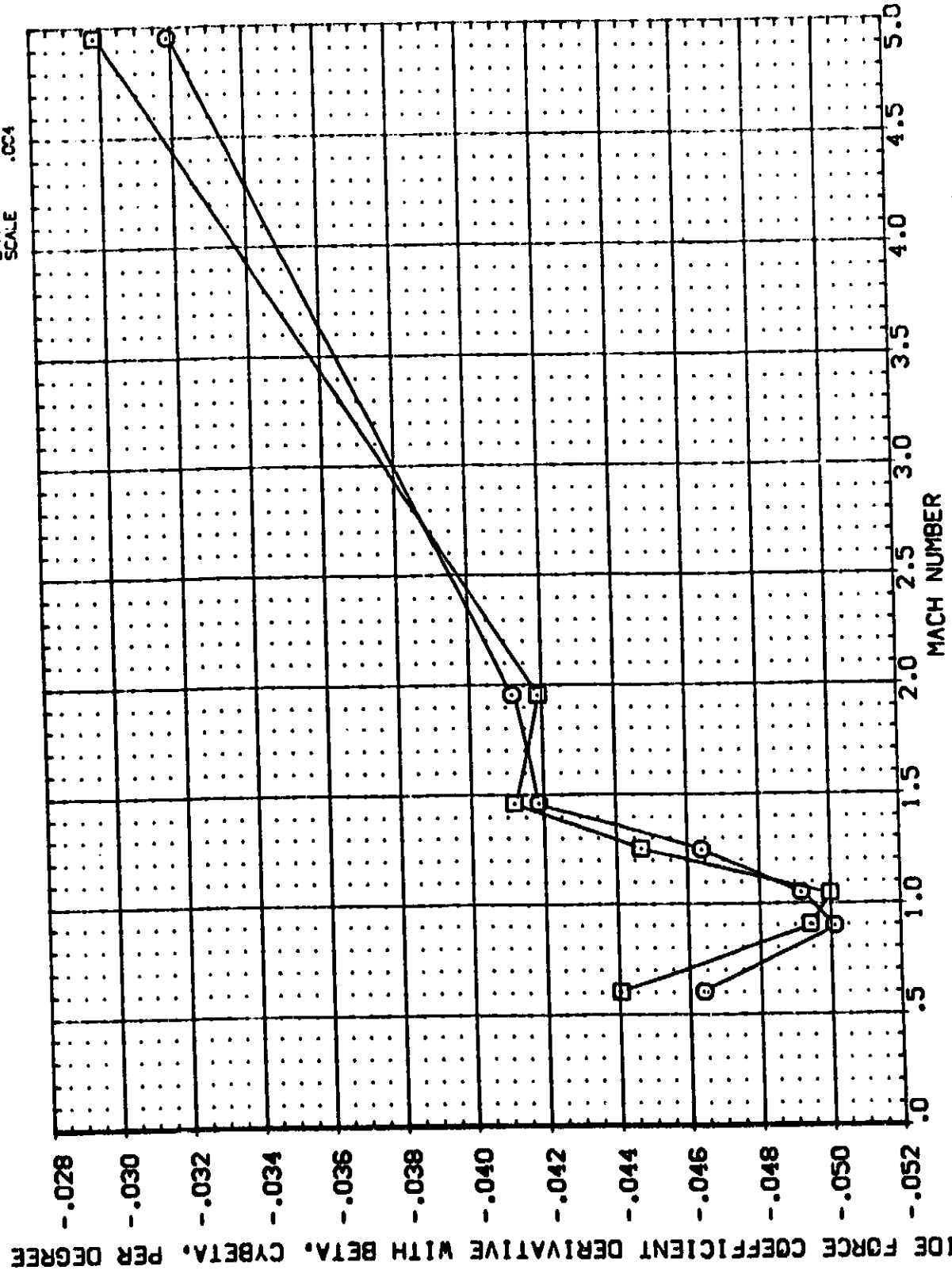
ORBIT: X-SRB .500
 Y-SRB .500

DELTA Z: .136
 .136

RUDER: .000
 .000

REFERENCE INFORMATION: SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.548
 YMRP .000
 ZMRP .000
 SCALE .001

SQ. IN. IN. IN. IN. IN. IN.

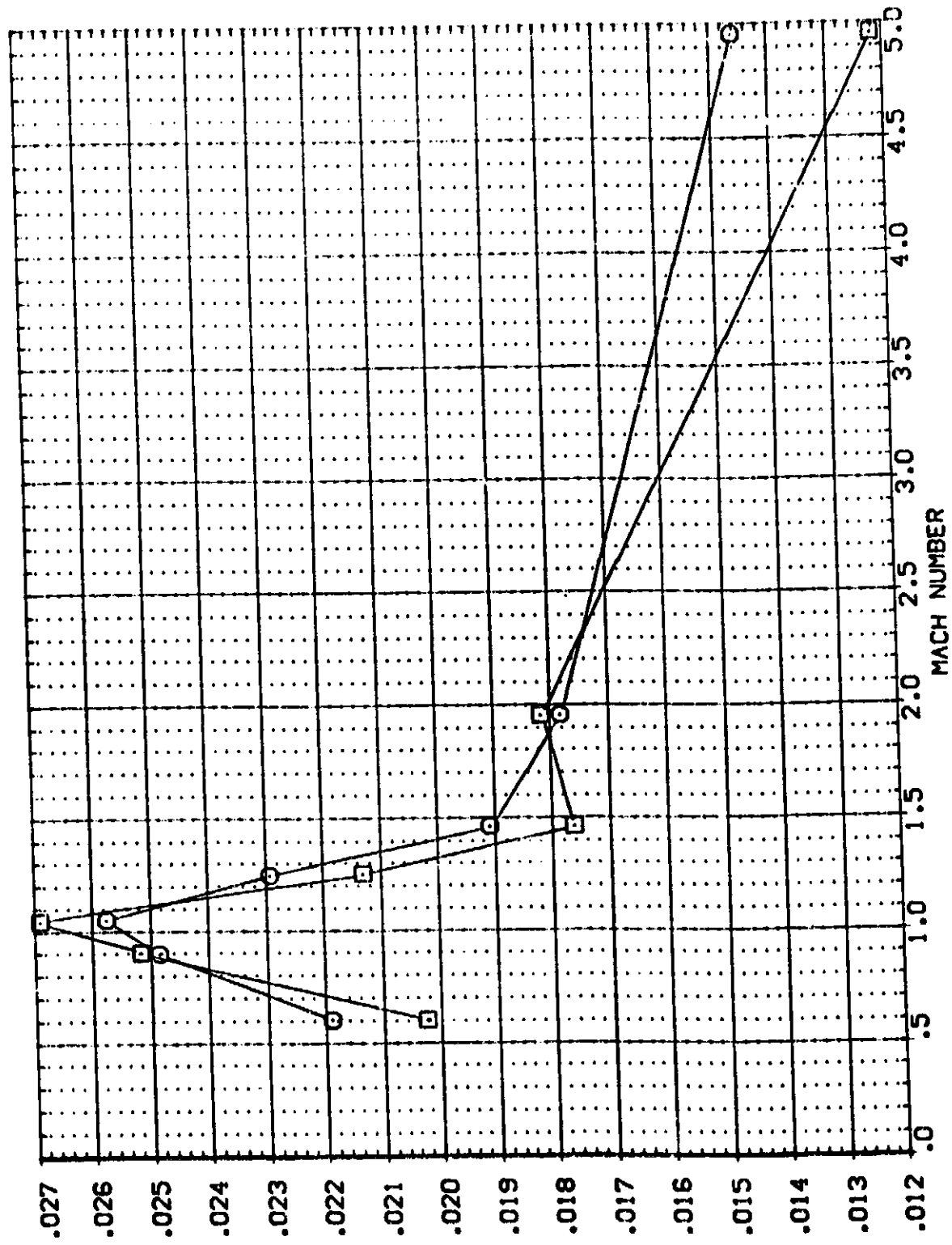


EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

YAWING MOMENT COEFFICIENT DERIVATIVE WITH BETA, CYNBET, PER DEGREE

DATA SET SYMBOL: [081002] [081003]
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 53
 MSFC 566 (1A31F) MCR 0074 LV 03 19 53

CRG INC: .500 .500
 X-SRB: .000 .400
 DELTA Z: .136 .136
 RUDDER: .000 .000
 REFERENCE INFORMATION:
 SREF: 6.198
 (REF: 5.313
 BREF: 5.313
 XMRP: 2.549
 YMRP: .000
 ZMRP: .000
 SCALE: .001
 SG: IN: 12.72222



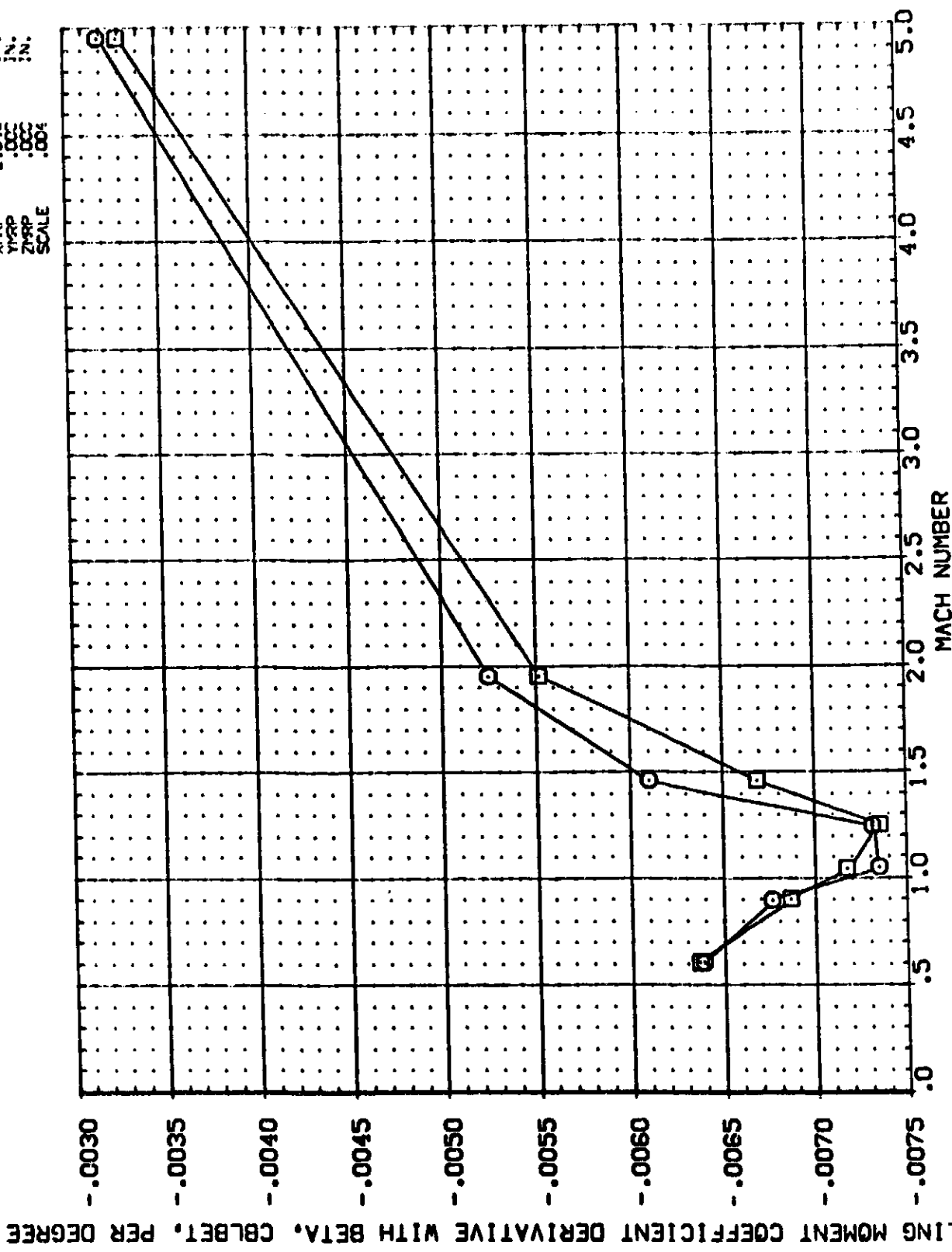
EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS



DATA SET SYMBOL: (081002) (081010) □
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION
.500 .000 .000 SREF 6.189
.500 .000 .000 LREF 5.313
YMRP 2.548 BREF 5.313
ZMRP .000 YMRP 2.548
SCALE .004 ZMRP .000

SD: IN
2.2
2.2
2.2
2.2



EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

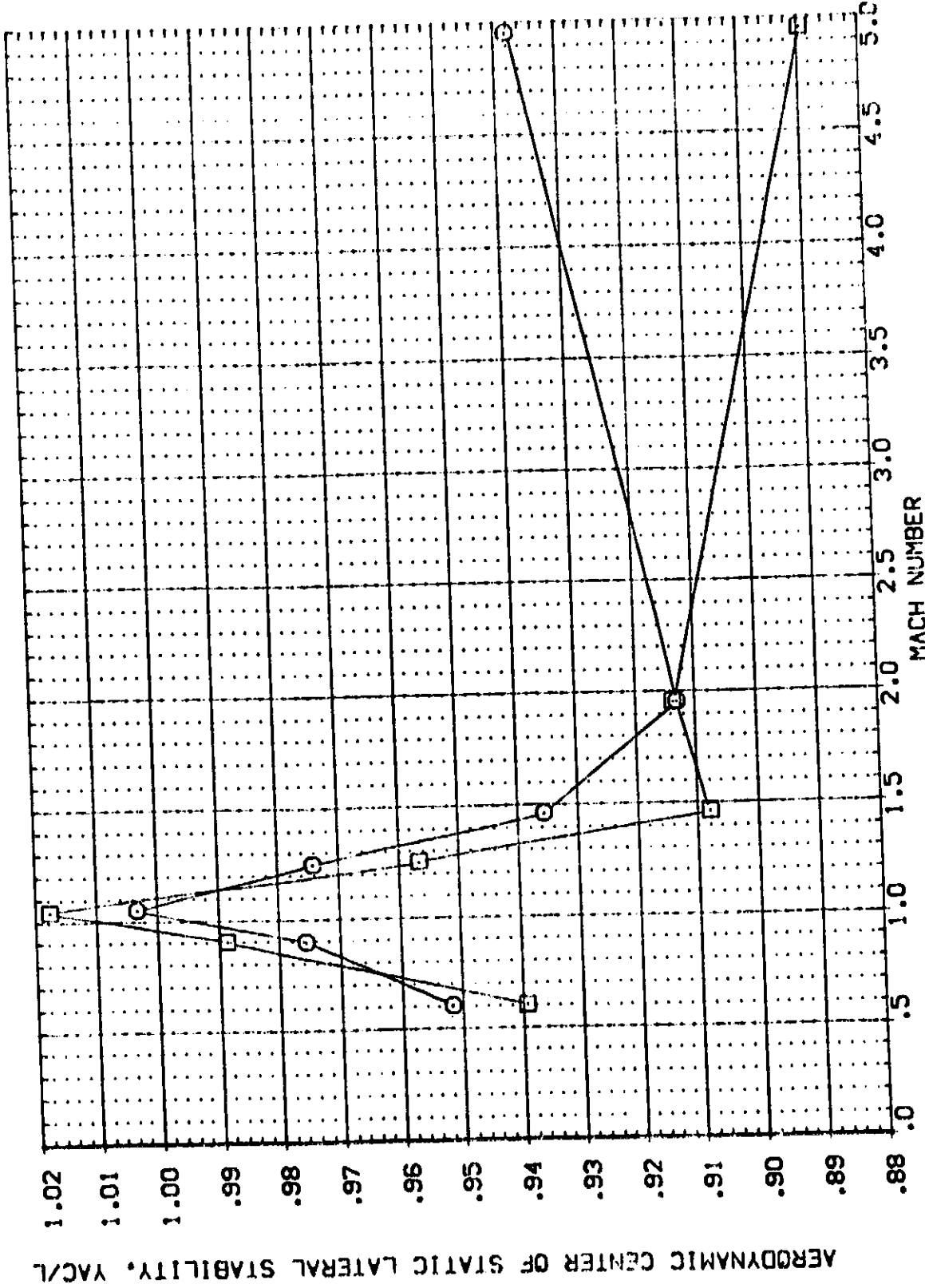
CONFIGURATION	DESCRIPTION
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100	...

CONFIGURATION	DESCRIPTION
MSFC 586 [1A3:F]	MCR 0074 LV 03 T9 S3
MSFC 586 [1A3:F]	MCR 0074 LV 03 T9 S3

INSTRUMENT	500
EX-500	500

DELTA	RUGER
.136	.000
.136	.000

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355
360

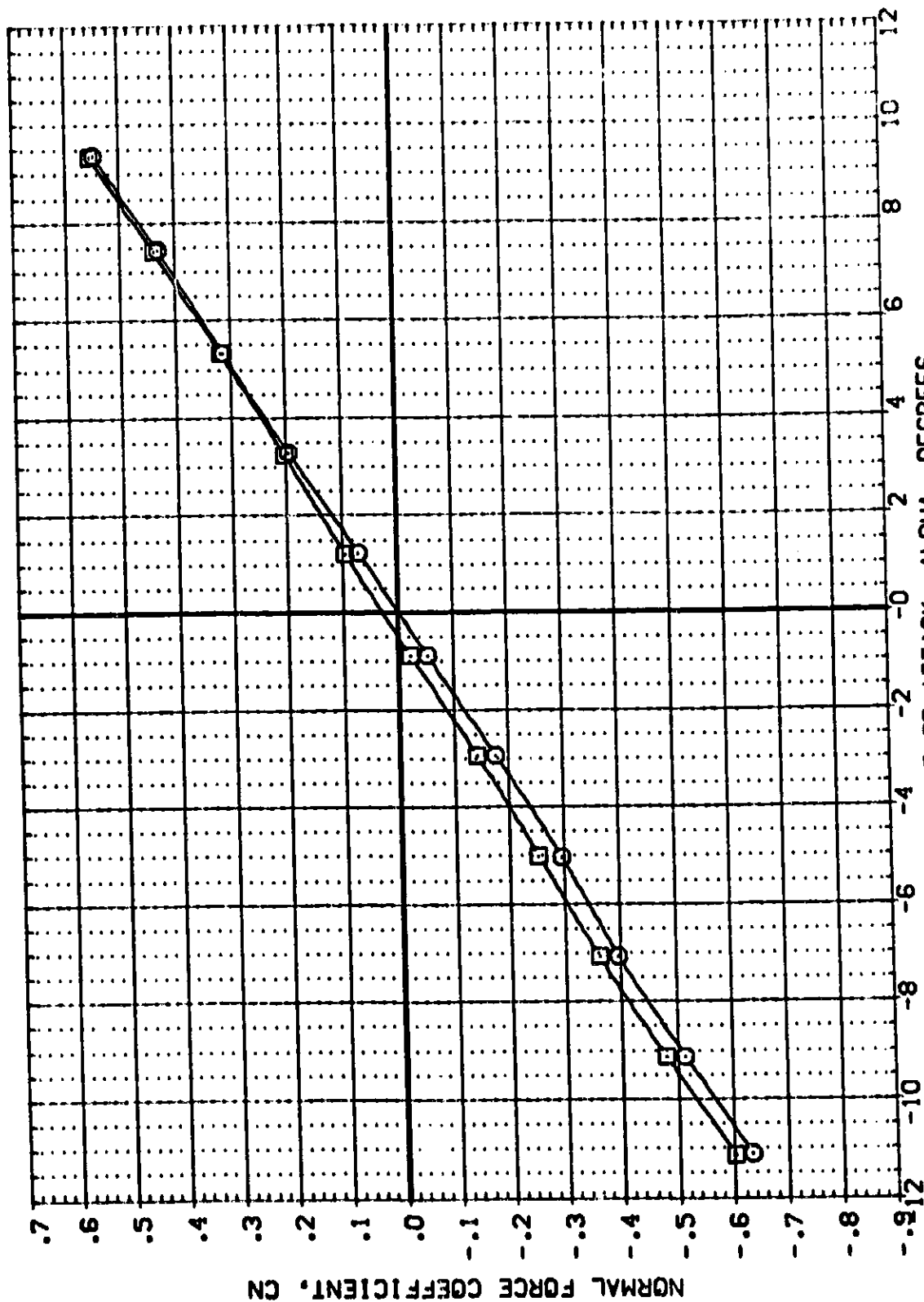
[illegible]

EFFECT OF LONGITUDINAL POSITION OF SRB ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: (F810811) (F81013) CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTA Z	RUDDER	SREF	BREF	XWPP	YWPP	ZWPP	SCALE
.500	.000	.136	.000	6.198	5.313	.000	.000	.000	.001
.500	.000	.136	.000	IN.	IN.	IN.	IN.	IN.	IN.

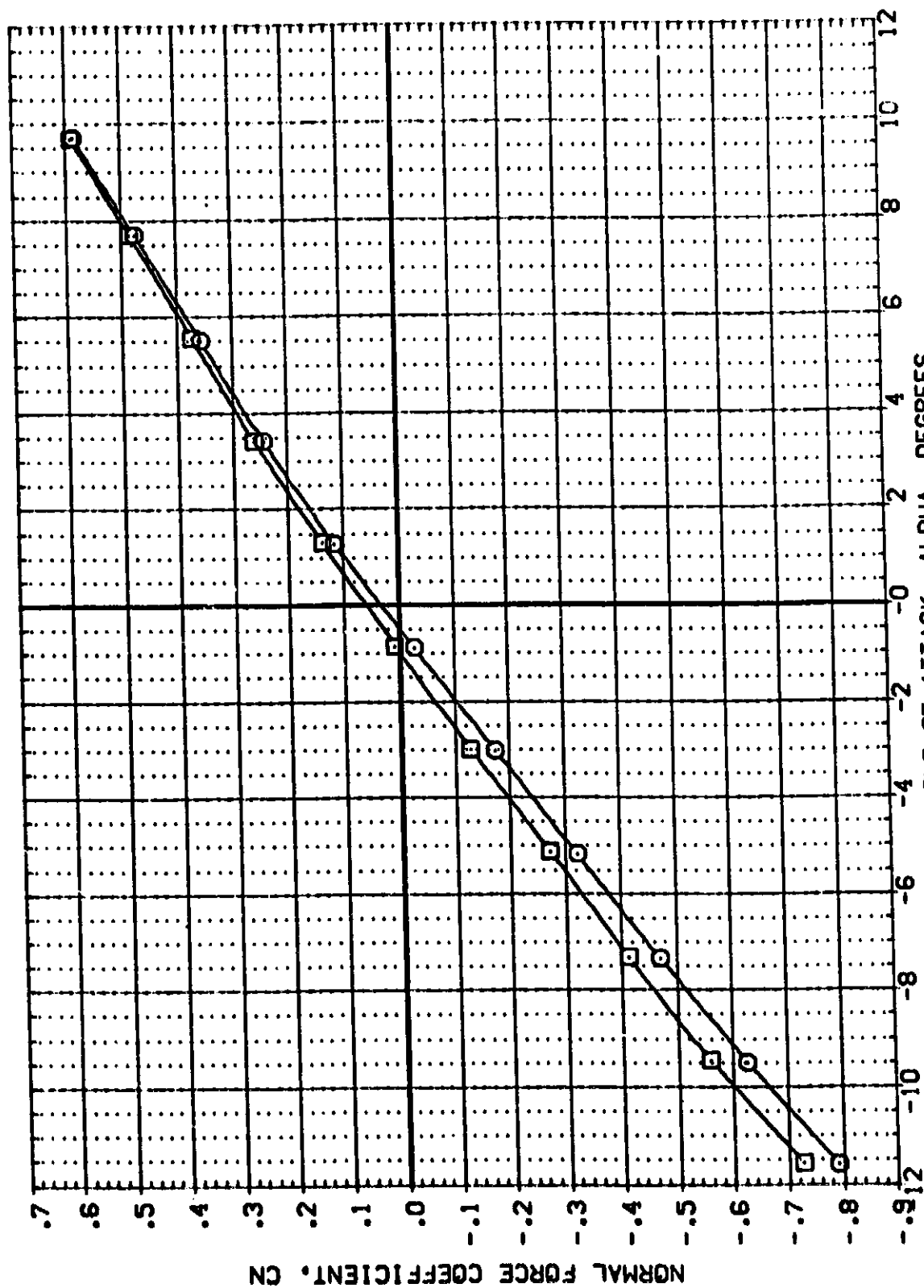


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(MACH = 0.60)



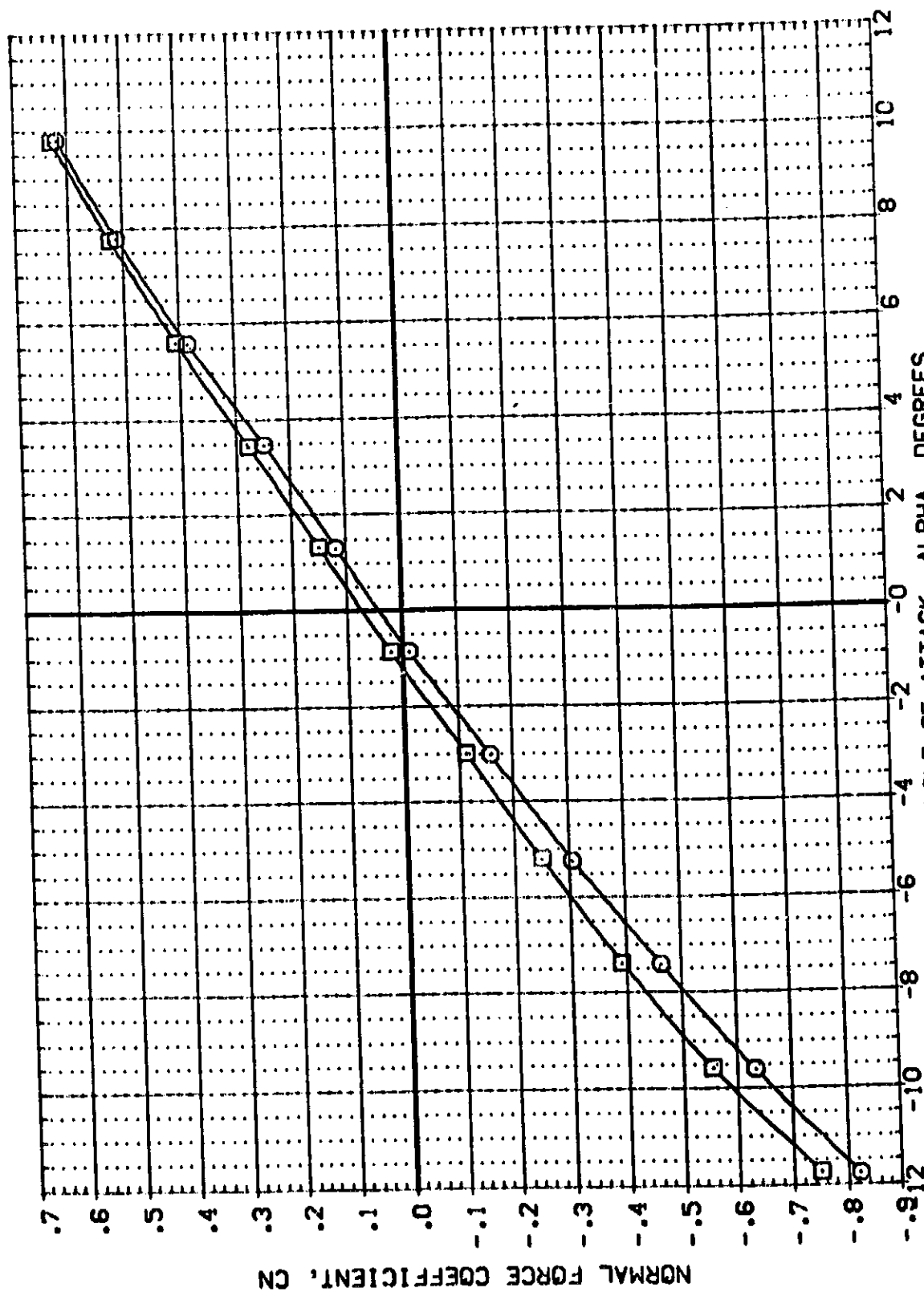
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
(F81081)	Q	MFC 566 (1A31F)	MCR 0074 LV 03 19 53	.500	.500	.000	.000	.136	.000	SREF	6.198	SO. IN	
(F81013)		MFC 566 (1A31F)	MCR 0074 LV 03 15 53	.500	.500	.000	.000	.136	.000	UREF	5.313	IN.	
										EREF	5.313	IN.	
										YMRP	2.548	IN.	
										ZMRP	.000	IN.	
										SCALE	.004	IN.	



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL: (F8)0811
 CONFIGURATION DESCRIPTION: WSC 565 (1A31F) WCR 0074 LV C3 19 S3 US
 WSC 565 (1A31F) WCR 0074 LV C3 19 S3 US
 ORIGIN: X-SRB: .500, DELTA Z: .136, RUDDER: .000, REFERENCE INFORMATION: SREF: 5.198, LREF: 5.313, BREF: 5.313, XMRP: 2.548, YMRP: .000, ZMRP: .000, SCALE: .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

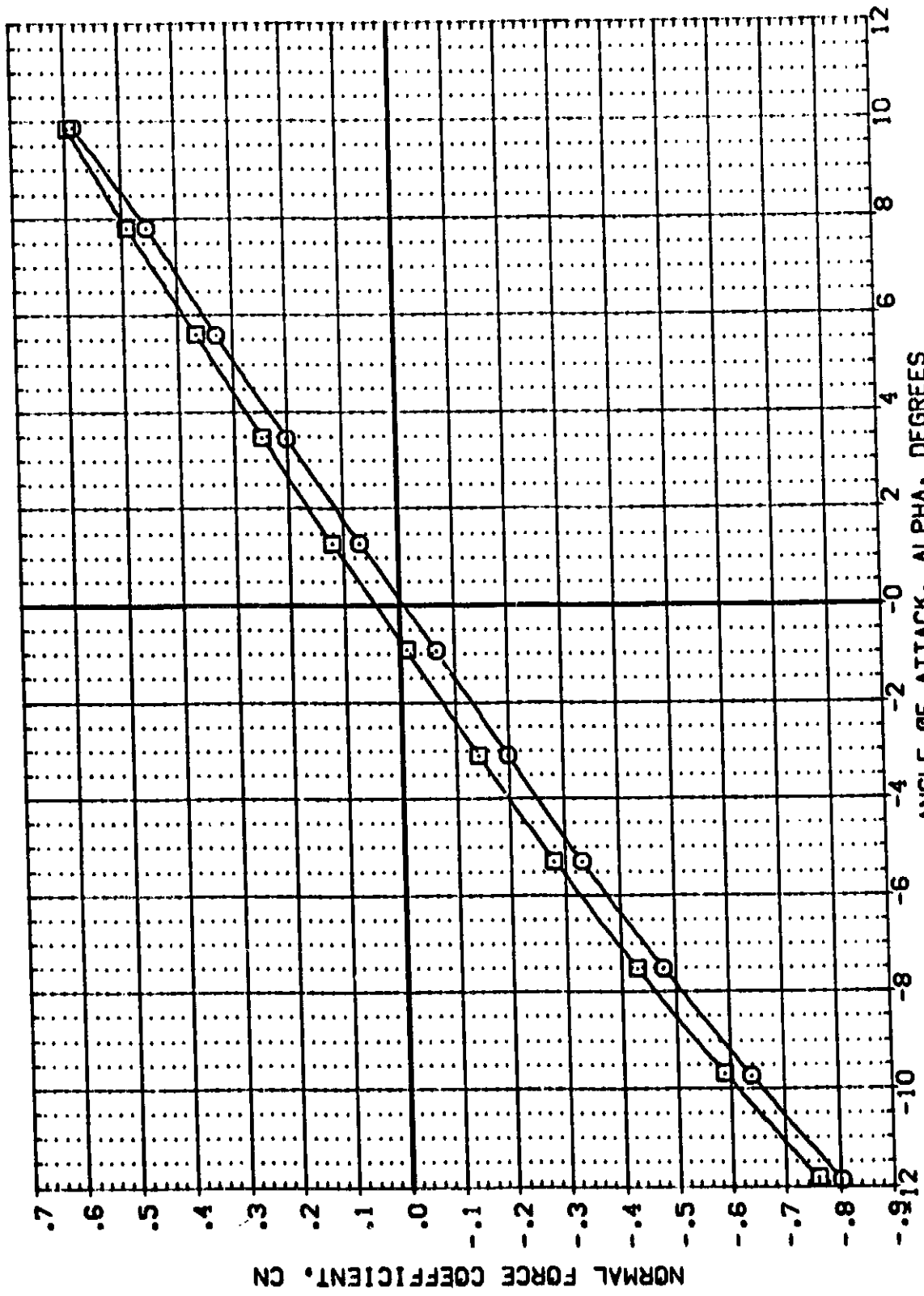
(C)MACH = 1.25

DATA SET SYMBOL: (F81081) (F81013)

CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 U5
MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 U5

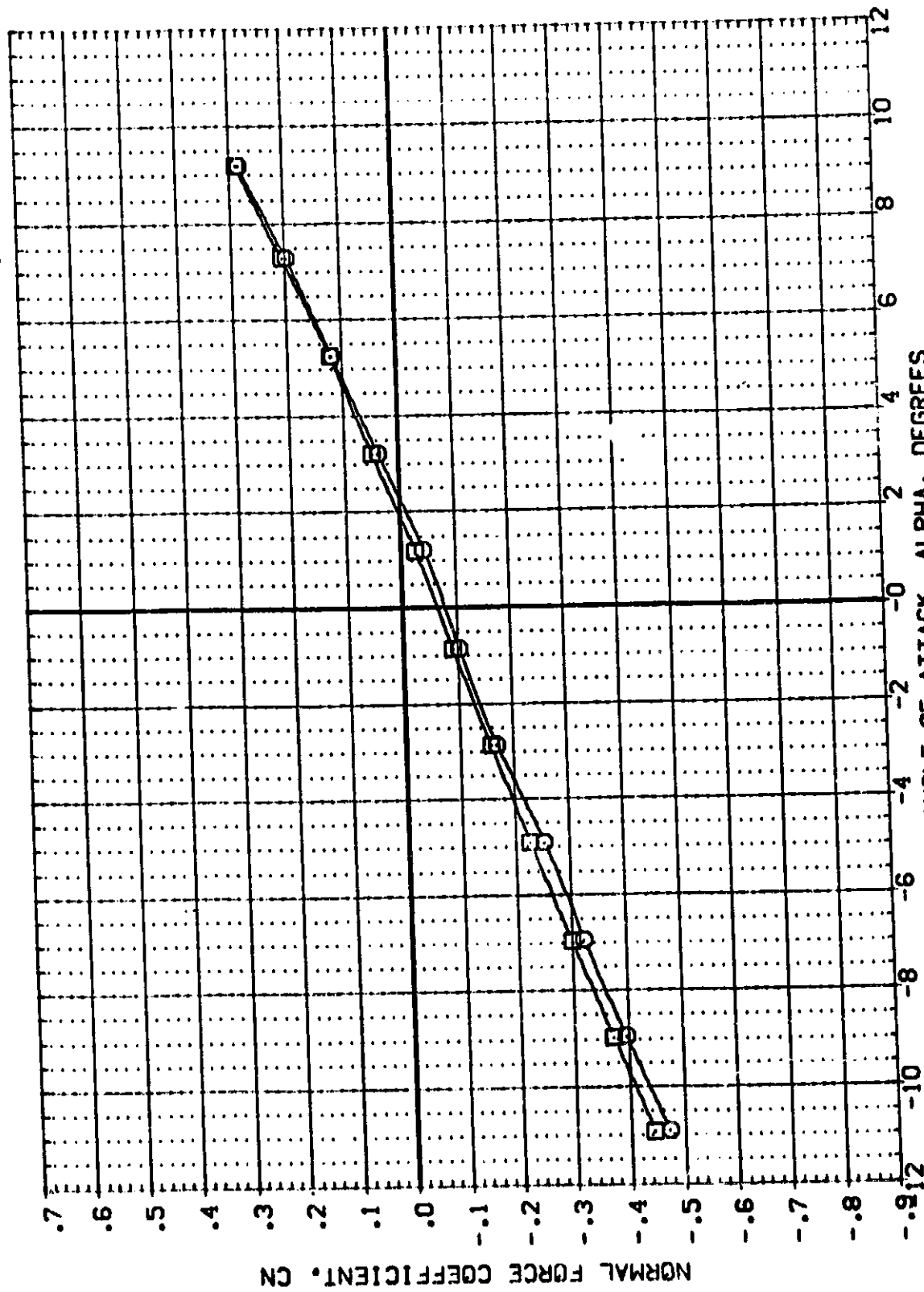
ORBITAL X-SRB DELTA Z RUDDER

REFERENCE INFORMATION: SREF 6.198 IN: SQ. IN
LREF 5.313 IN: IN:
BREF 5.313 IN: IN:
XMRP 2.549 IN: IN:
YMRP .000 IN: IN:
ZMRP .000 IN: IN:
SCALE .001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

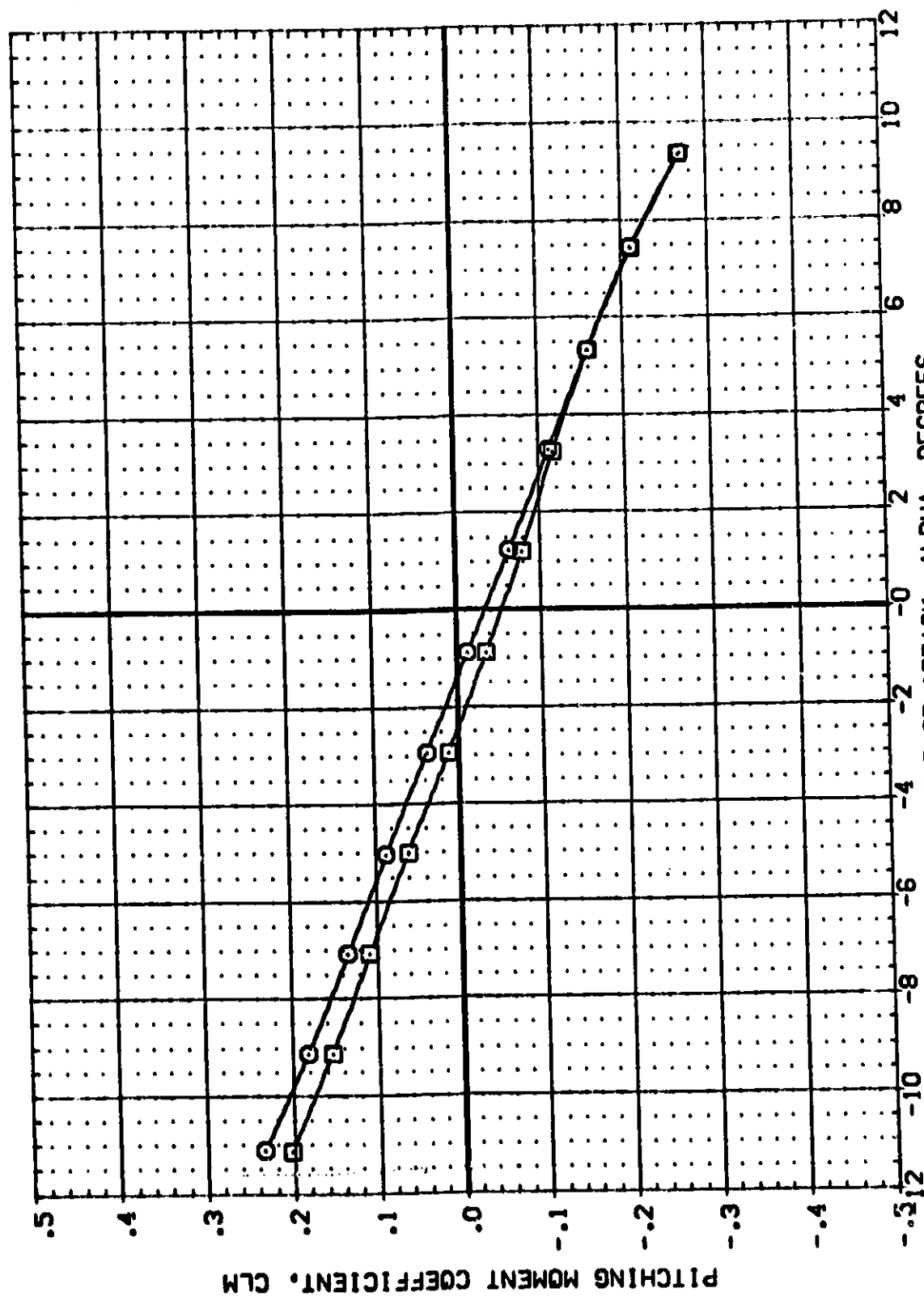
(E)MACH = 1.96

[illegible]

EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

$$MACH = 4.96$$

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
(F81081)	□	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198	50. IN			
(F81013)	□	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3 U6	.500	.000	.136	.000	LREF	5.313	IN.			
								BREF	5.313	IN.			
								XMRP	2.549	IN.			
								YMRP	.000	IN.			
								ZMRP	.000	IN.			
								SCALE	.004				



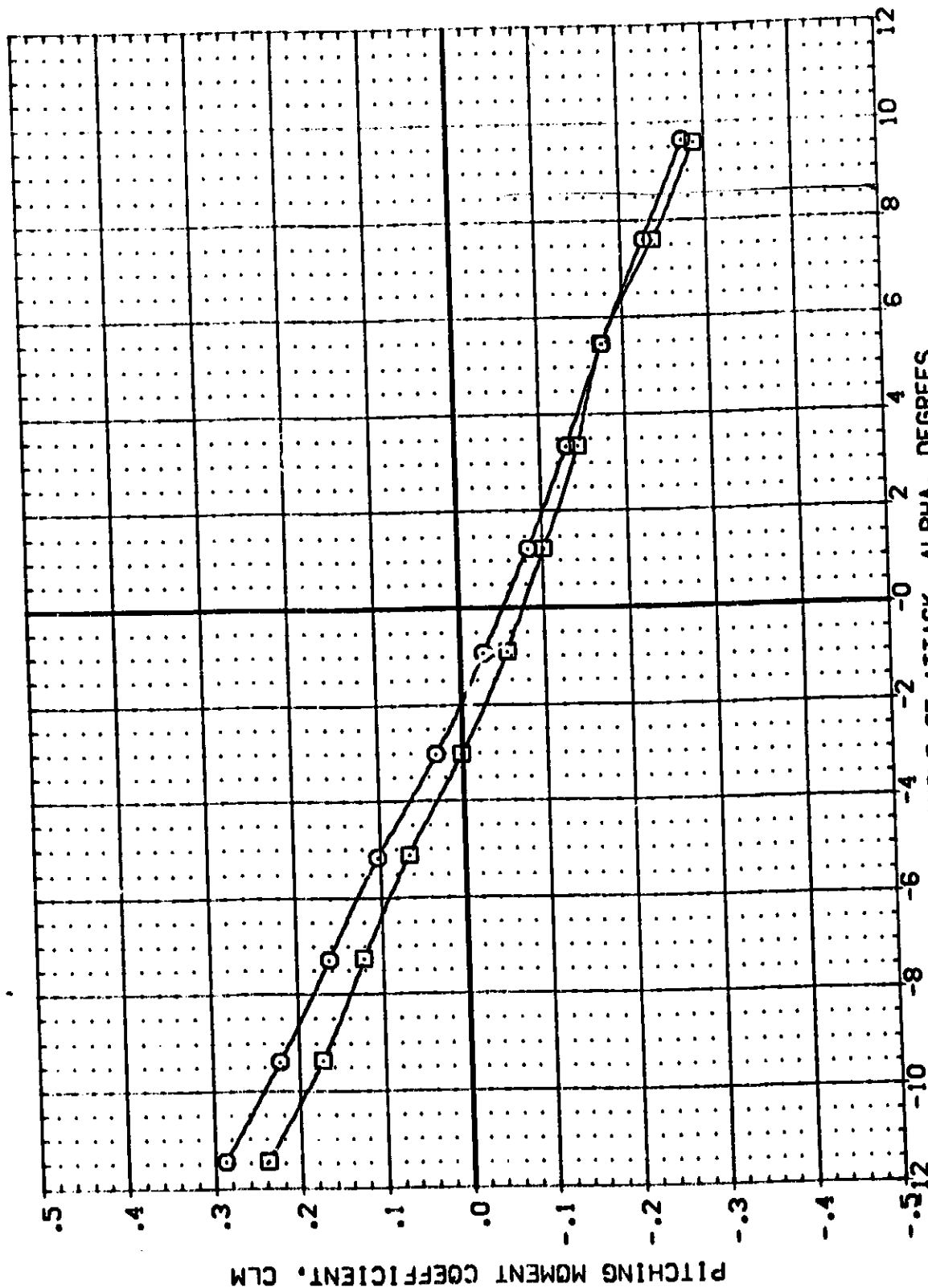
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL: Q
 CONFIGURATION DESCRIPTION: MSFC 586 (IA31F) MCR C074 LV 03 T9 S3
 (F910B1) MSFC 586 (IA31F) MCR C074 LV 03 T9 S3 US

ORBIT: X-SRB .000 .000 .500 .500
 DELTA Z: .136 .136
 RUDDER: .000 .000

REFERENCE INFORMATION:
 SREF: 5.198
 LREF: 5.313
 XREF: 5.313
 YREF: 2.549
 ZREF: .000
 SCALE: .001

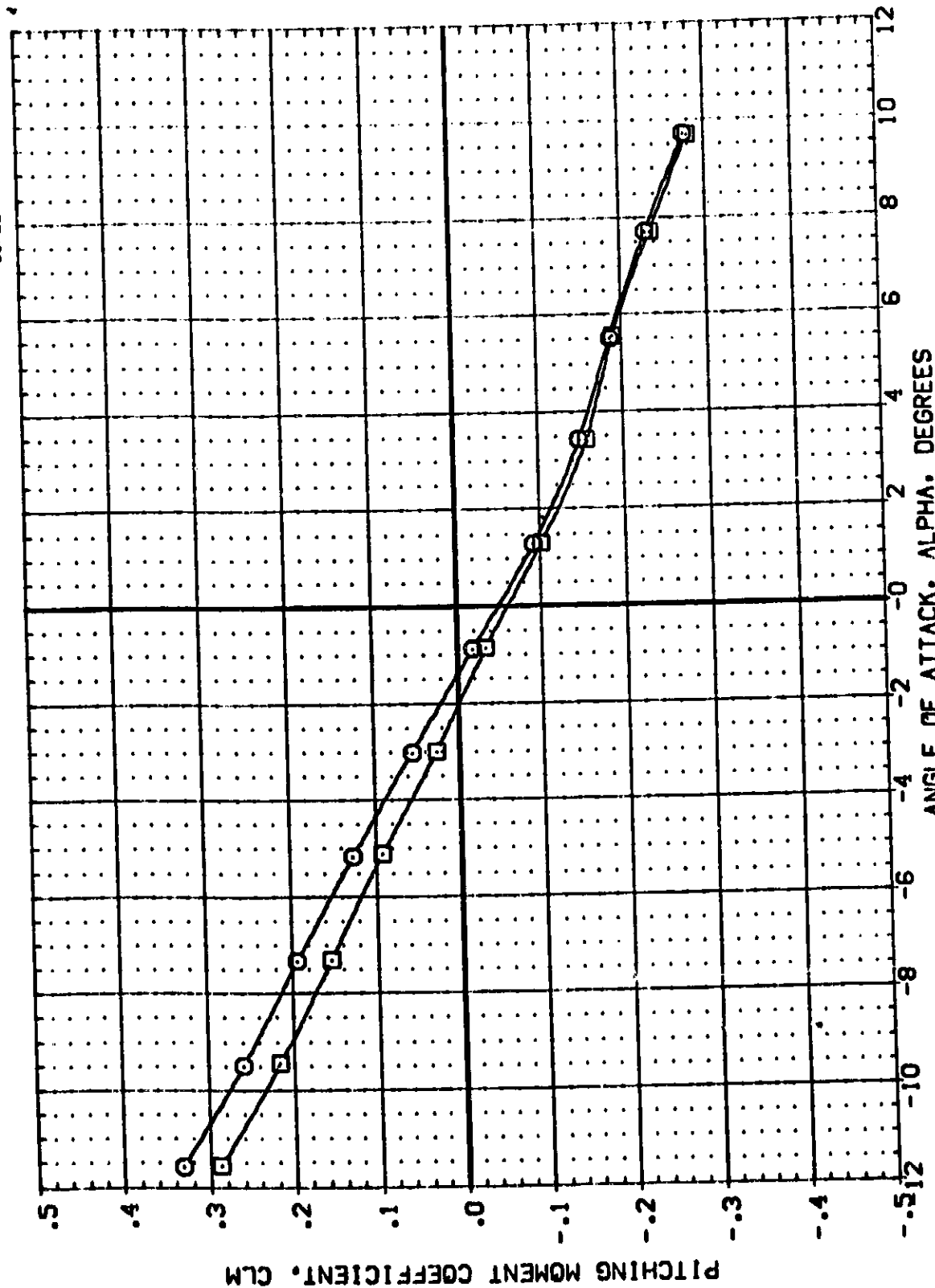


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(F81091)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(F81D13)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3 US	.500	.000	.136	.000	LREF 5.313
						BREF 5.313
						YMRP 2.545
						ZMRP .000
						SCALE .001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

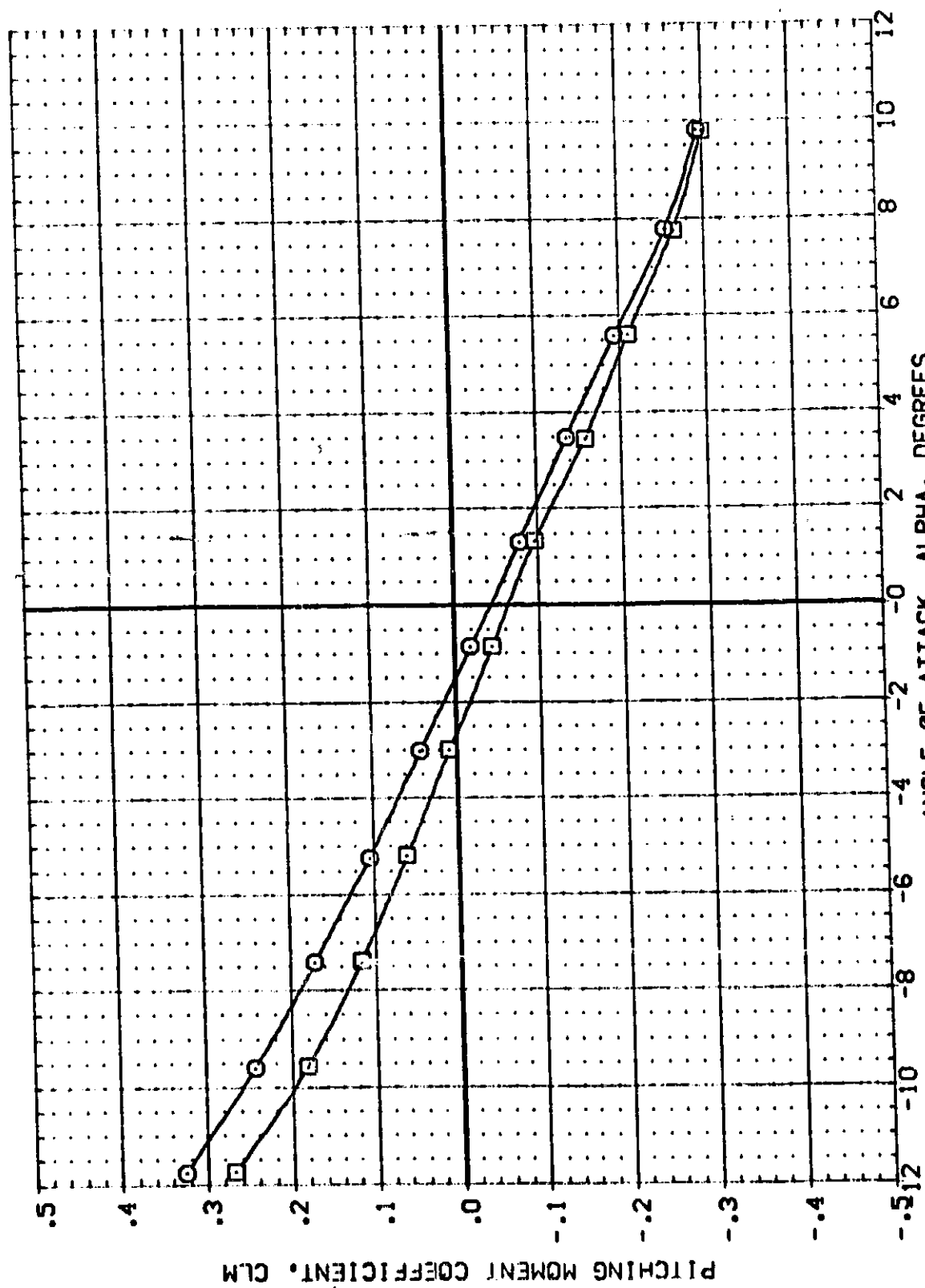
(C)MACH = 1.05

DATA SET SYMBOL: (F81031) (F81013)

CONFIGURATION DESCRIPTION: MFC 566 (1A31F) MFC 0074 LV 03 19 S3 U6
MFC 566 (1A31F) MFC 0074 LV 03 19 S3 U6

ORIGIN: X-SRB 500
DELTA Z: .000
RUDDER: .000
SCALE: .001

REFERENCE INFORMATION: SREF 6.199
LREF 5.313
BREF 5.313
XMRP 2.546
YMRP .000
ZMRP .000
SCALE .001



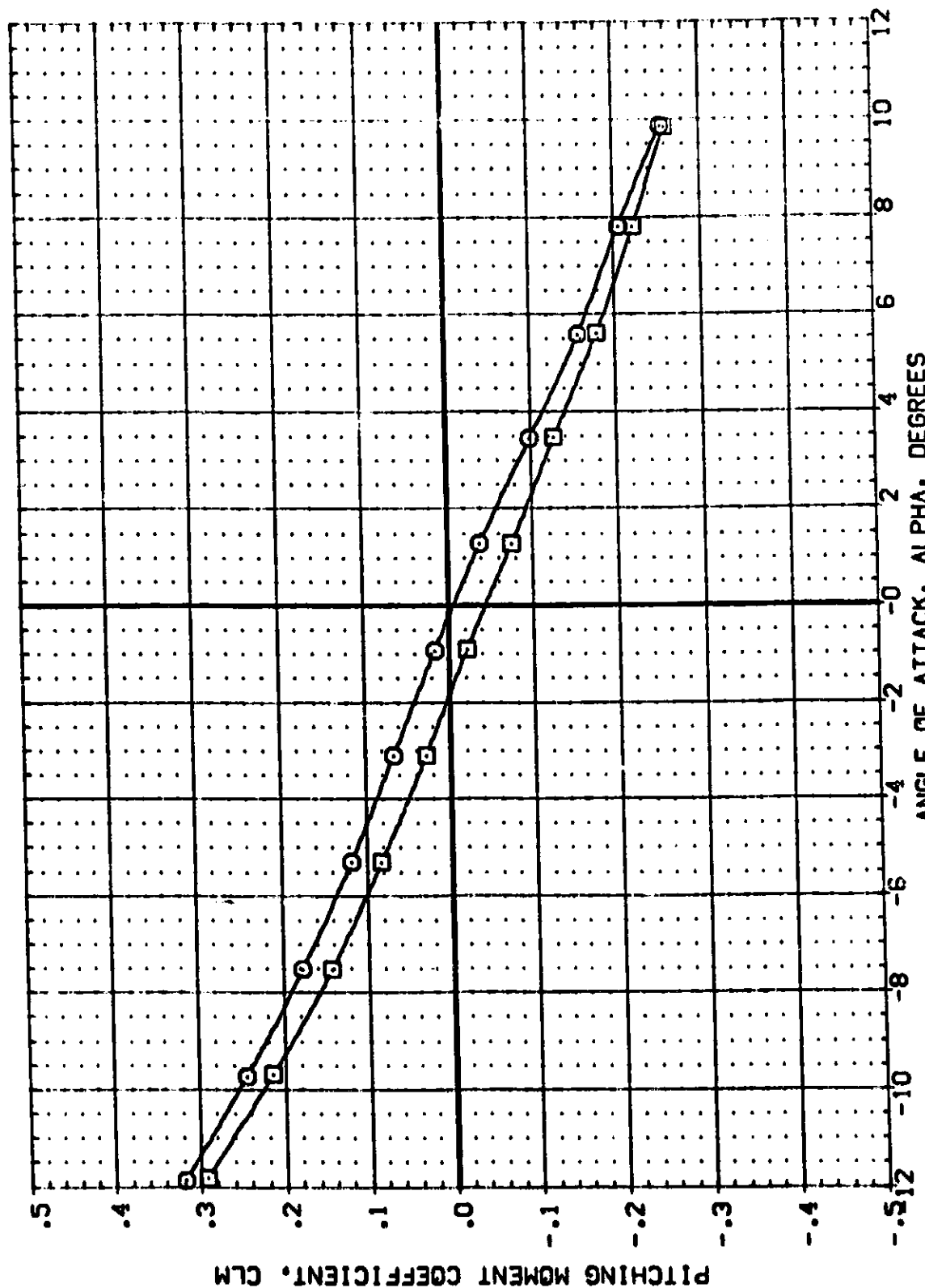
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(D)MACH = :.25



DATA SET SYMOL. CONFIGURATION DESCRIPTION ORBITAL X-SRB DELTAZ RUDDER REFERENCE INFORMATION

DATA SET SYMOL.	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTAZ	RUDDER	REFERENCE INFORMATION
(F81081)	M57C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 5.199
(F81013)	M57C 566 (1A31F) MCR 0074 LV 03 19 S3 US	.500	.000	.136	.000	LREF 5.213
						BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004

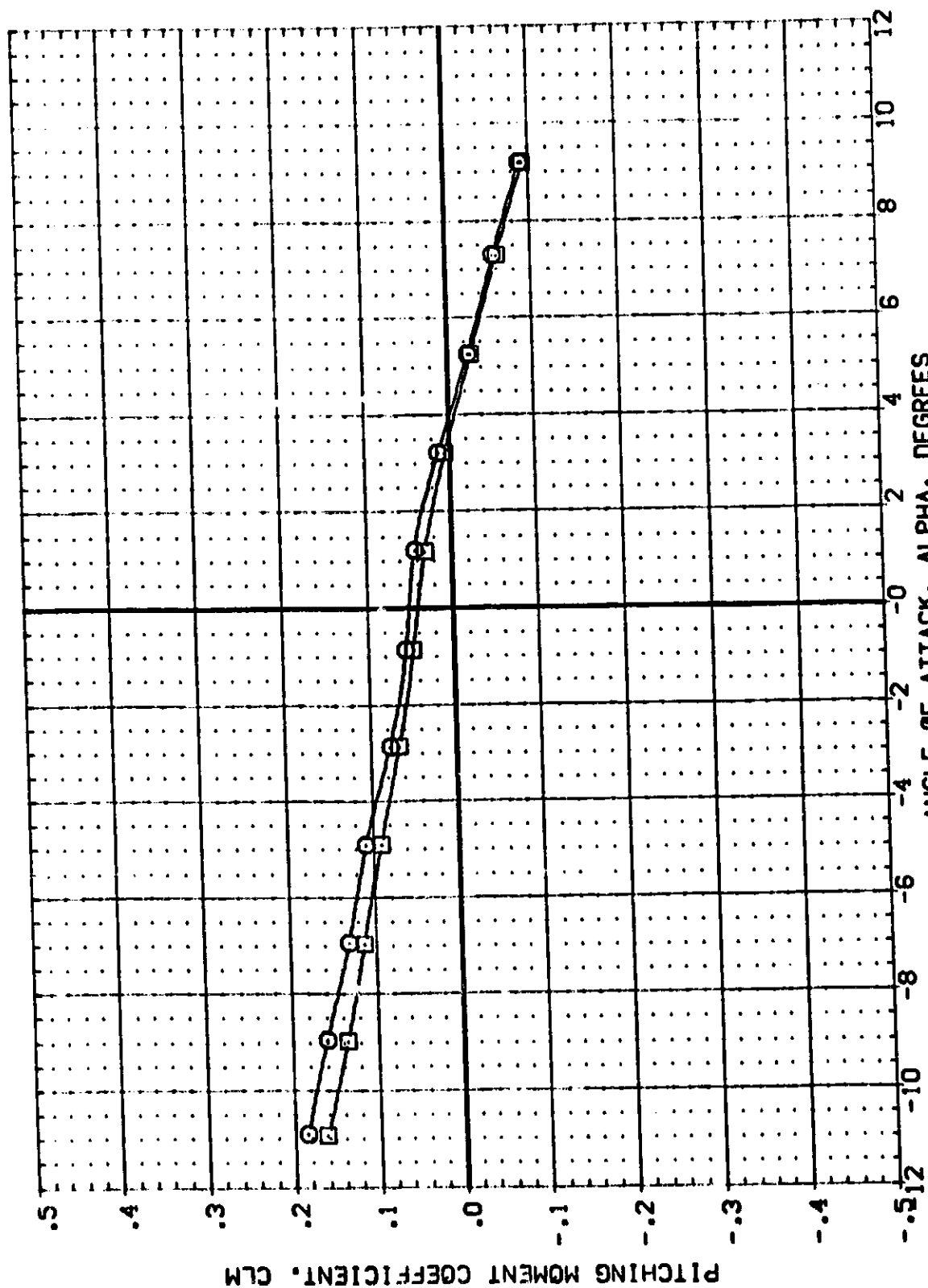


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(M)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
[F810B1]	MSC 566 (IA31F) MCR 0074 LV 03 19 53	
[F810B3]	MSC 566 (IA31F) MCR 0074 LV 03 19 53 US	

ORIGIN	X-SRB	DELTA Z	R-DOOR	REFERENCE INFORMATION
.500	.000	.136	.000	SRF 3.198
.500	.000	.136	.000	SRF 3.319
				SRF 3.324
				SRF 3.324
				XSRP 3.000
				YSRP 3.000
				ZSRP 3.000
				SCALE 3.000

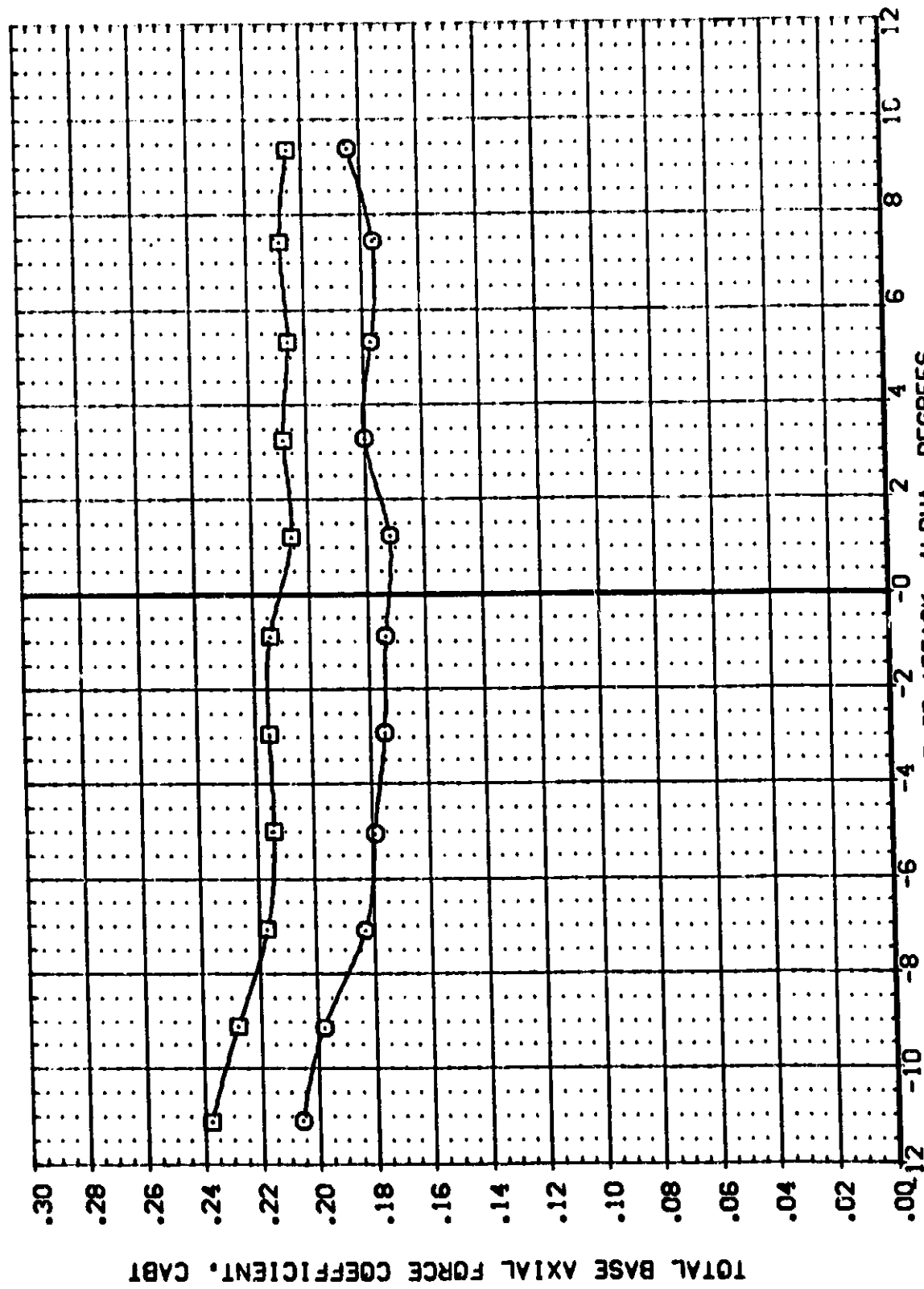


DATA SET SYMBOL: (F810B1) (F81013)

CONFIGURATION DESCRIPTION: M5C 566 (1A31F) MCR 0074 LV 03 T9 S3 US
M5C 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTA Z	RUDDER	REF	IN.	SO. IN
.500	.000	.136	.000	SREF	6.198	IN.
.500	.000	.136	.000	LREF	5.313	IN.
				BREF	5.313	IN.
				XMRP	2.549	IN.
				YMRP	.000	IN.
				ZMRP	.000	IN.
				SCALE	.004	IN.



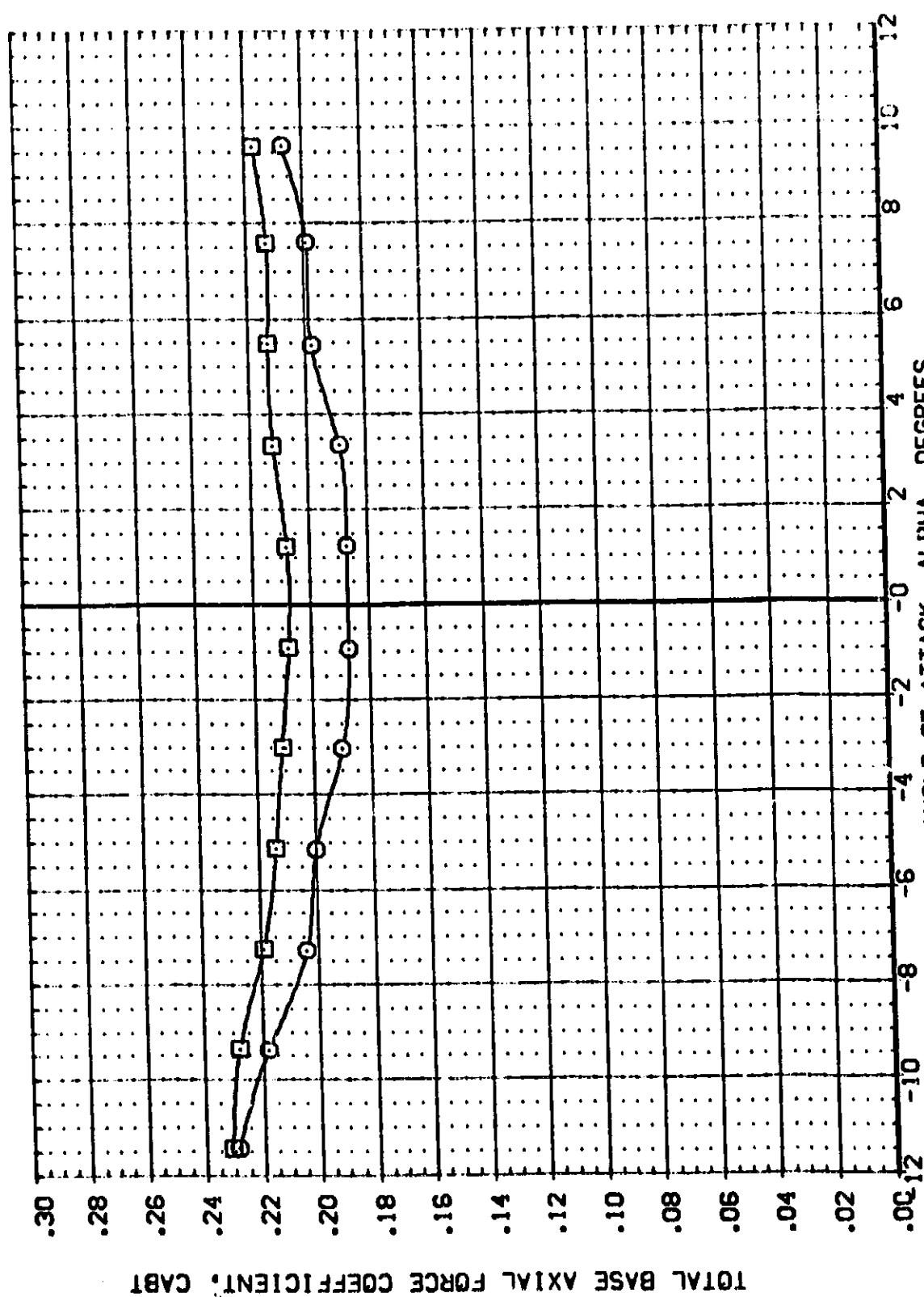
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(MACH = 0.60)

DATA SET SYMBOL: [F810B13] [F81013] CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBIT: X-599 DELTA Z: .000 RUDDER: .000

REFERENCE INFORMATION: SREF: 6.198 SREF: 6.198 LREF: 5.313 LREF: 5.313 BREF: 2.542 BREF: 2.542 XREF: .000 XREF: .000 YREF: .000 YREF: .000 ZREF: .000 ZREF: .000 SCALE: .001

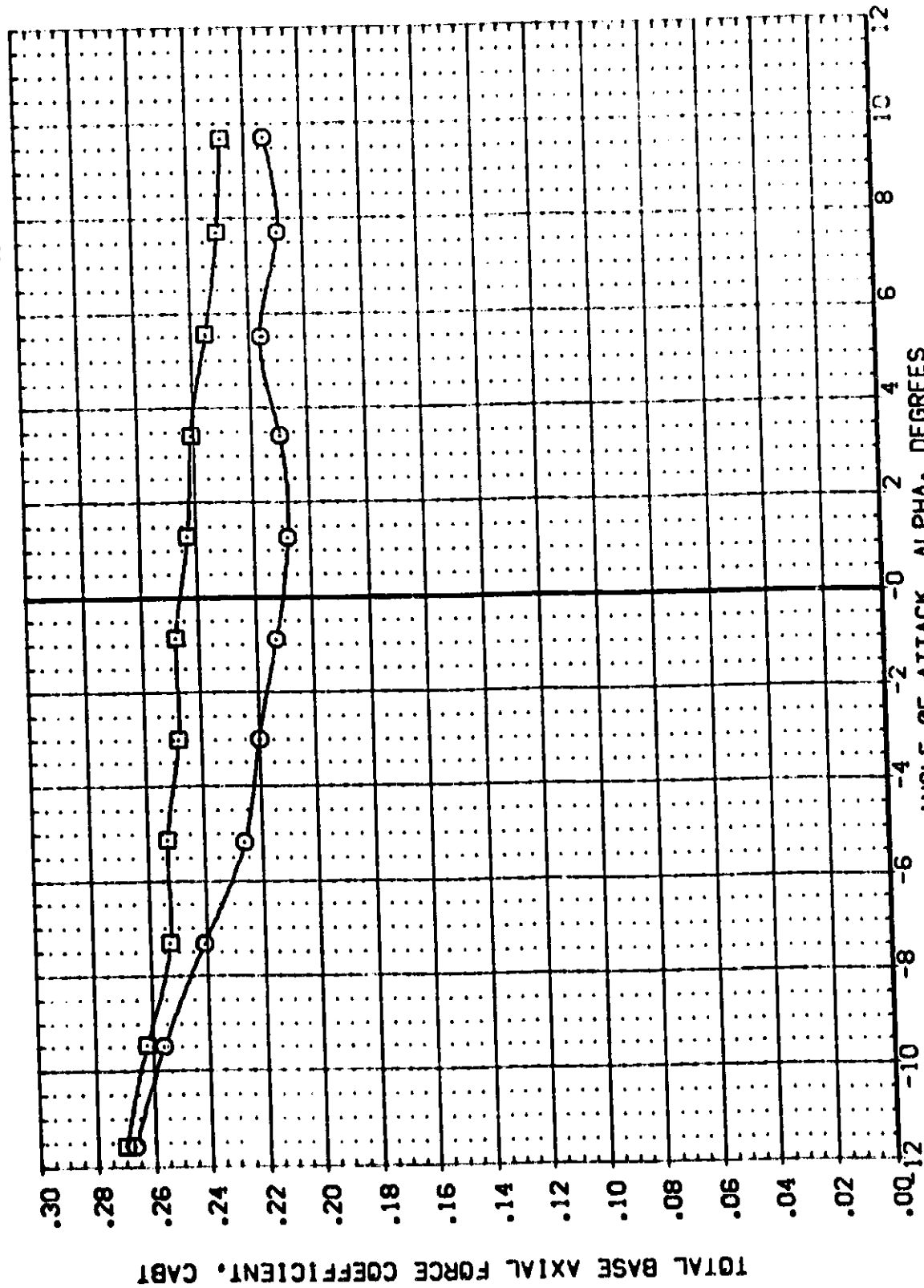


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

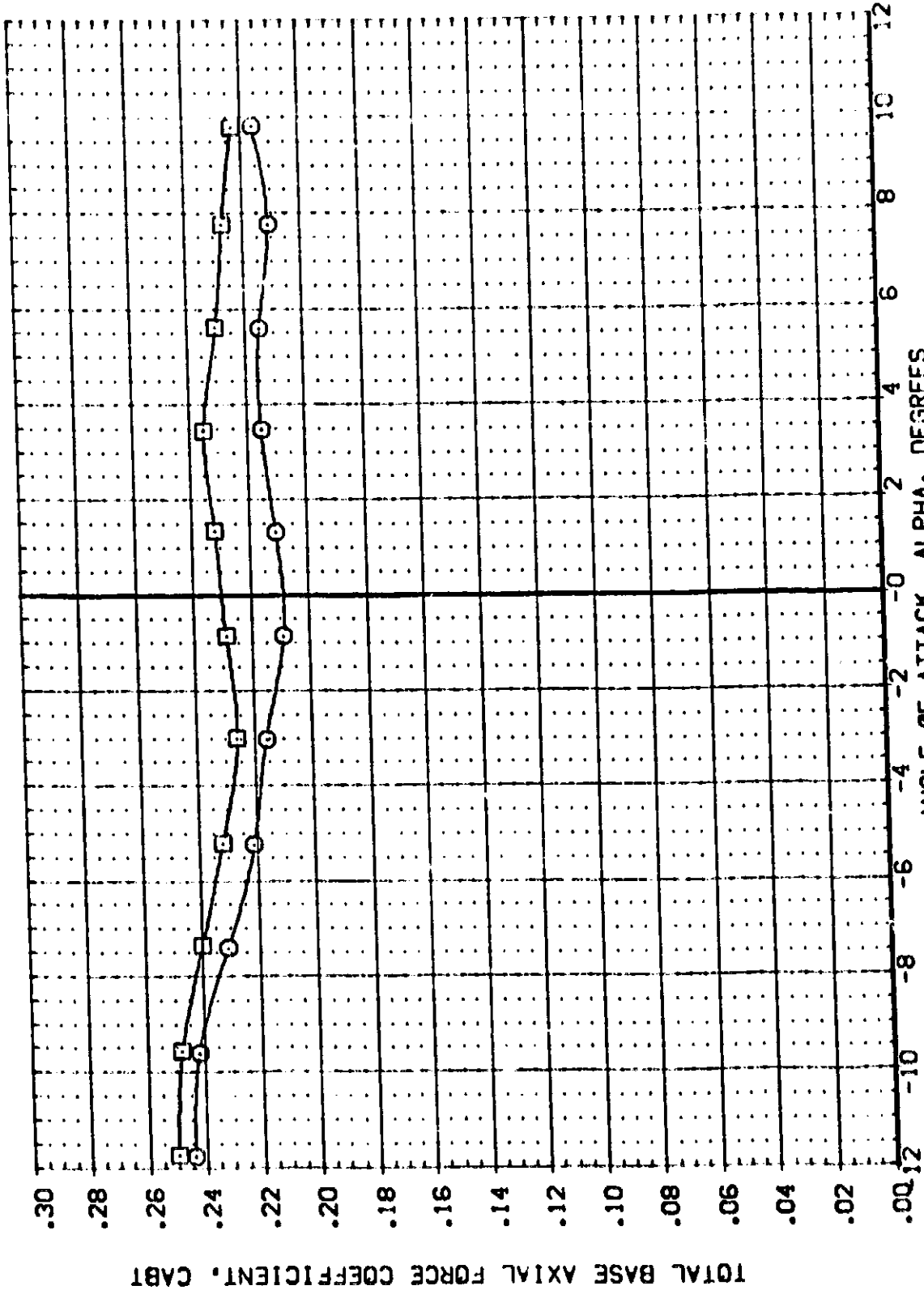
(B)MACH = 0.91



DATA SET SYMOL	CONFIGURATION DESCRIPTION	DRBINC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(F81081)	MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3	.500	.000	.136	.000	SREF 6.198
(F81013)	MSFC 566 (1A31F) MCR 0074 LV C3 T9 S3 US	.500	.300	.136	.000	LREF 5.313
						SREF 5.313
						X-REF 2.548
						Y-REF .000
						Z-REF .000
						SCALE .001



DATA SET SYMBOL: M5FC 566 (1A3:1) MCR 0074 LV 03 19 53 US
 [F8:09:1] [F8:013]
 ORIGIN: X-SRB .500 DELTA Z: .000 R-ROCK: .000
 .500 .000 .000
 REFERENCE INFORMATION: SREF: 5.18E SREF: 5.18E
 LREF: 5.18E LREF: 5.18E
 BREF: 5.18E BREF: 5.18E
 XREF: 5.18E XREF: 5.18E
 YREF: 5.18E YREF: 5.18E
 ZREF: 5.18E ZREF: 5.18E
 SCALE: .000

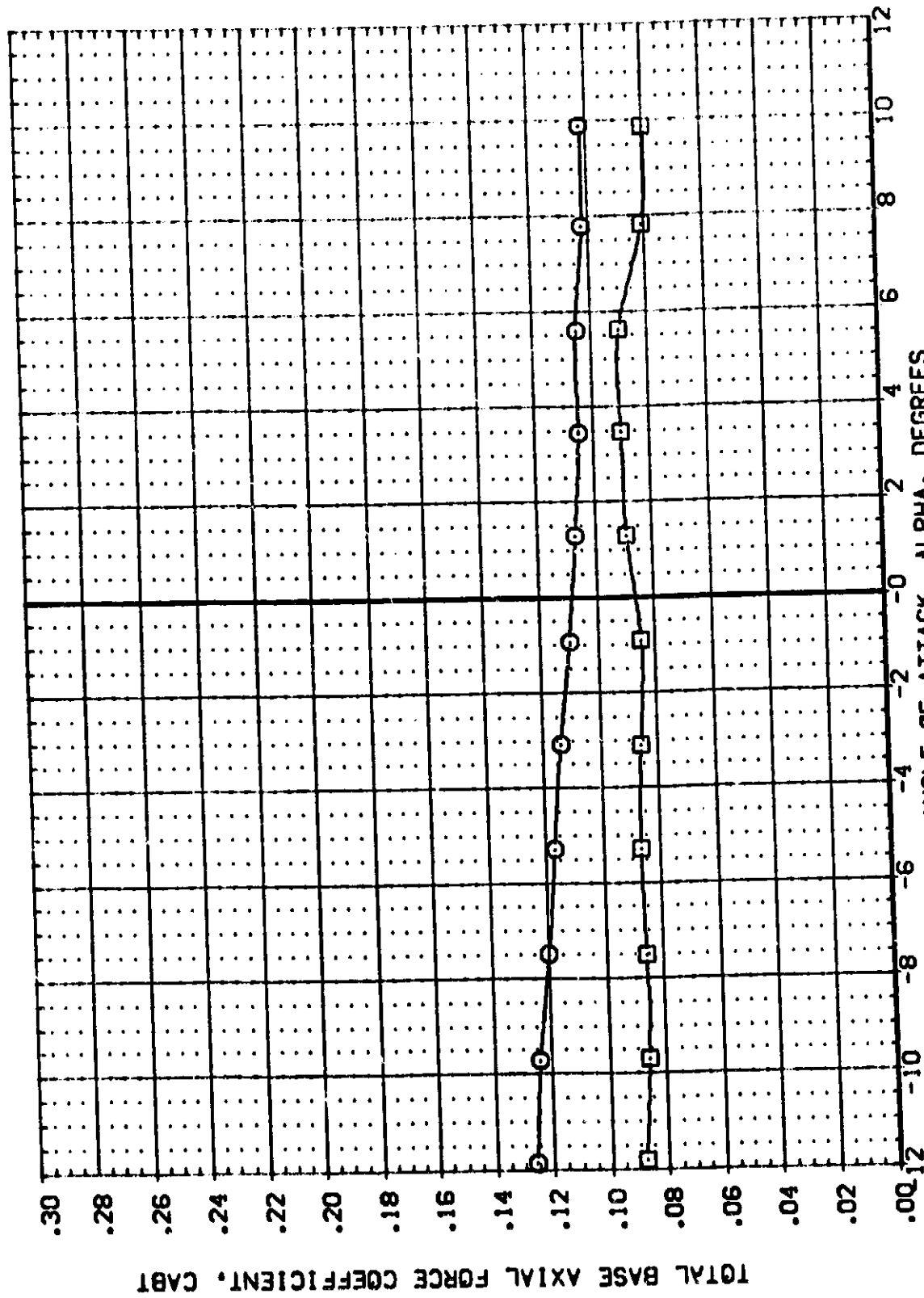


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

COMACH = 1.25

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F81081) Q MSC 566 (1A31F) MCR 0074 LV 03 79 S3
 (F81013) Q MSC 566 (1A31F) MCR 0074 LV 03 79 S3 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ IN
 .500 .000 .136 .000 SREF 6.198
 .500 .000 .136 .000 LREF 5.313
 .000 .000 .000 .000 BREF 2.549
 .000 .000 .000 .000 XMRP .000
 .000 .000 .000 .000 YMRP .000
 .000 .000 .000 .000 ZMRP .000
 .000 .000 .000 .000 SCALE .000



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.96

REFERENCE	INNOVATION	Z
SRF	0.00	0.00
REF	0.00	0.00
REF	0.00	0.00
XPR	0.00	0.00
YPR	0.00	0.00
ZPR	0.00	0.00
SCALE	0.00	0.00



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$$[F]_{MACH} = 4.96$$

DATA SET SYMBOL: (F810B1) (F81013)

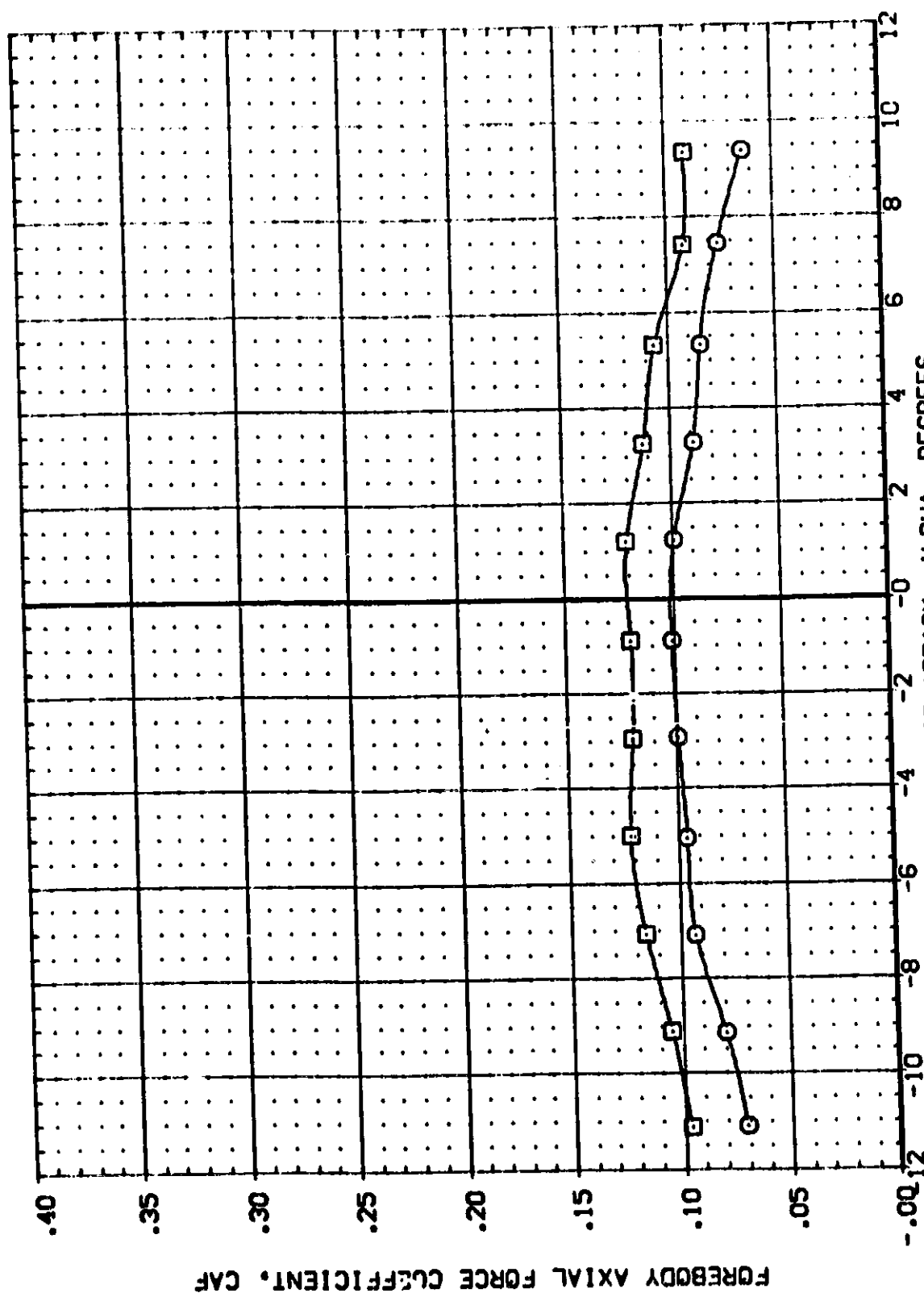
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBITAL: X-SRB .500 .500

DELTA Z: .136 .136

RUDER: .000 .000

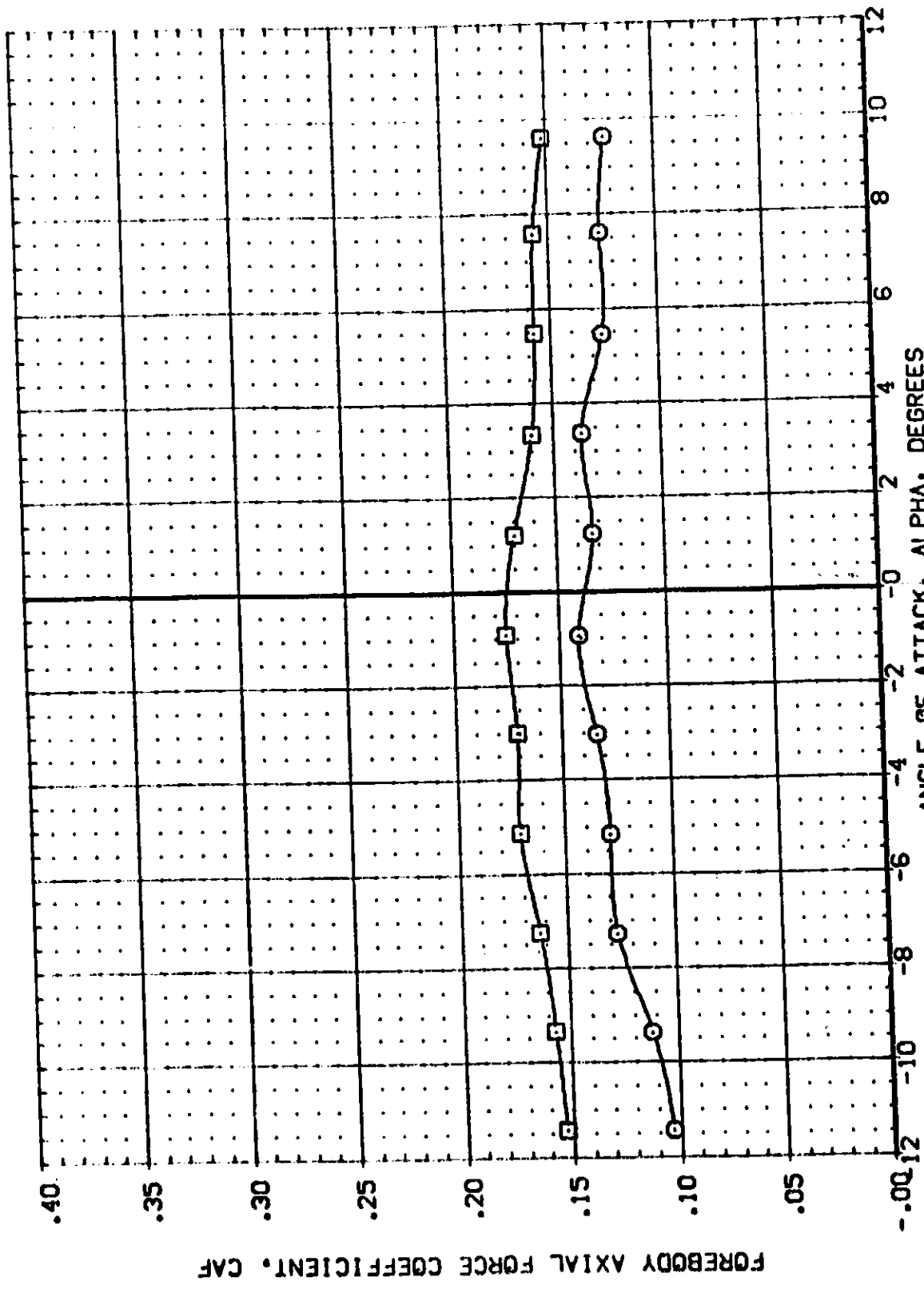
REFERENCE INFORMATION: SREF 6.198 LREF 5.313 BREF 5.313 XMRP 2.549 YMRP .000 ZMRP .000 SCALE .001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(MACH = 0.60)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
[F8:091]	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US	.500	.000	.136	.000	SREF 6.198
[F8:013]	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US	.500	.000	.136	.000	LREF 5.313
						BREF 5.313
						XMRP 2.646
						YMRP .000
						ZMRP .000
						SCALE .001

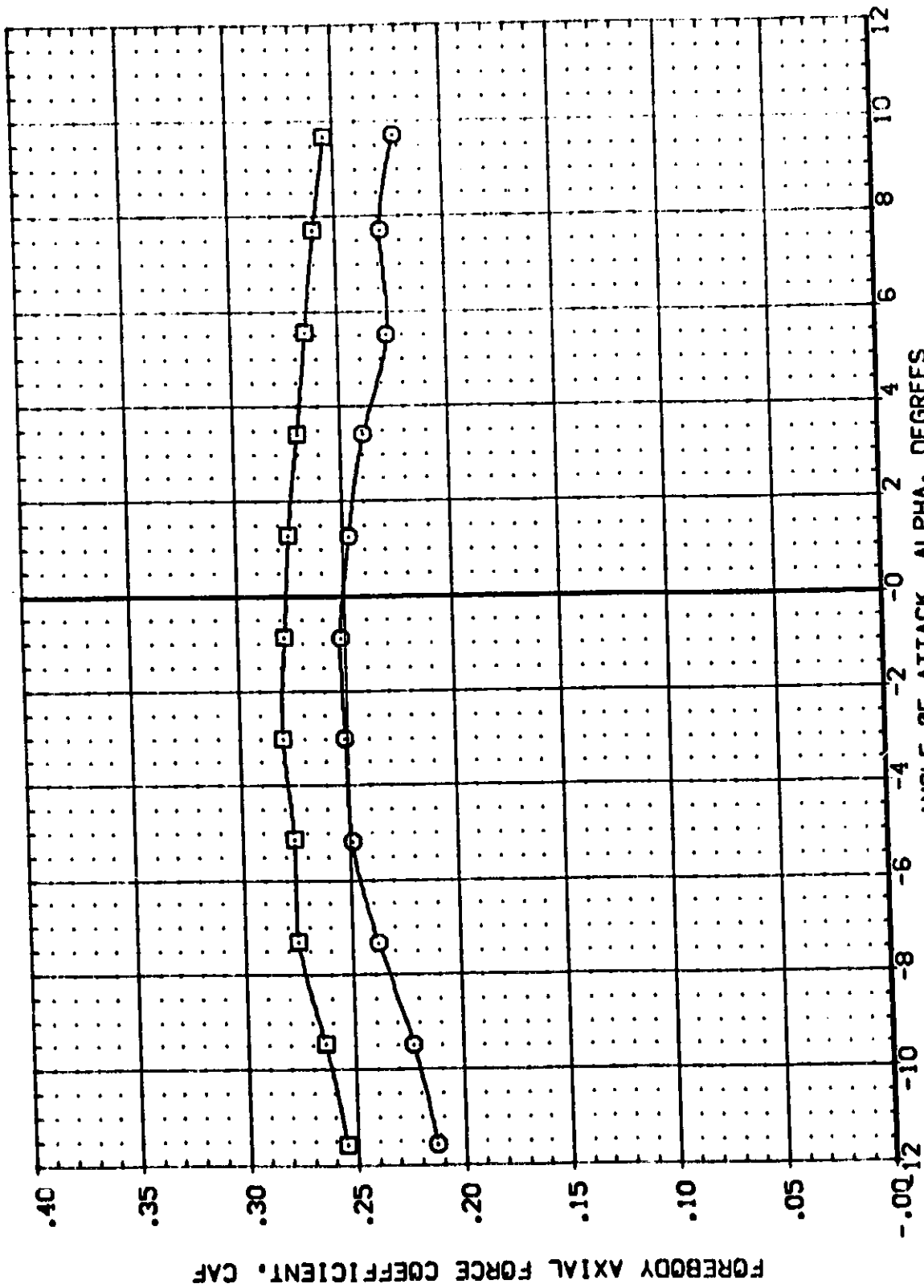


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91



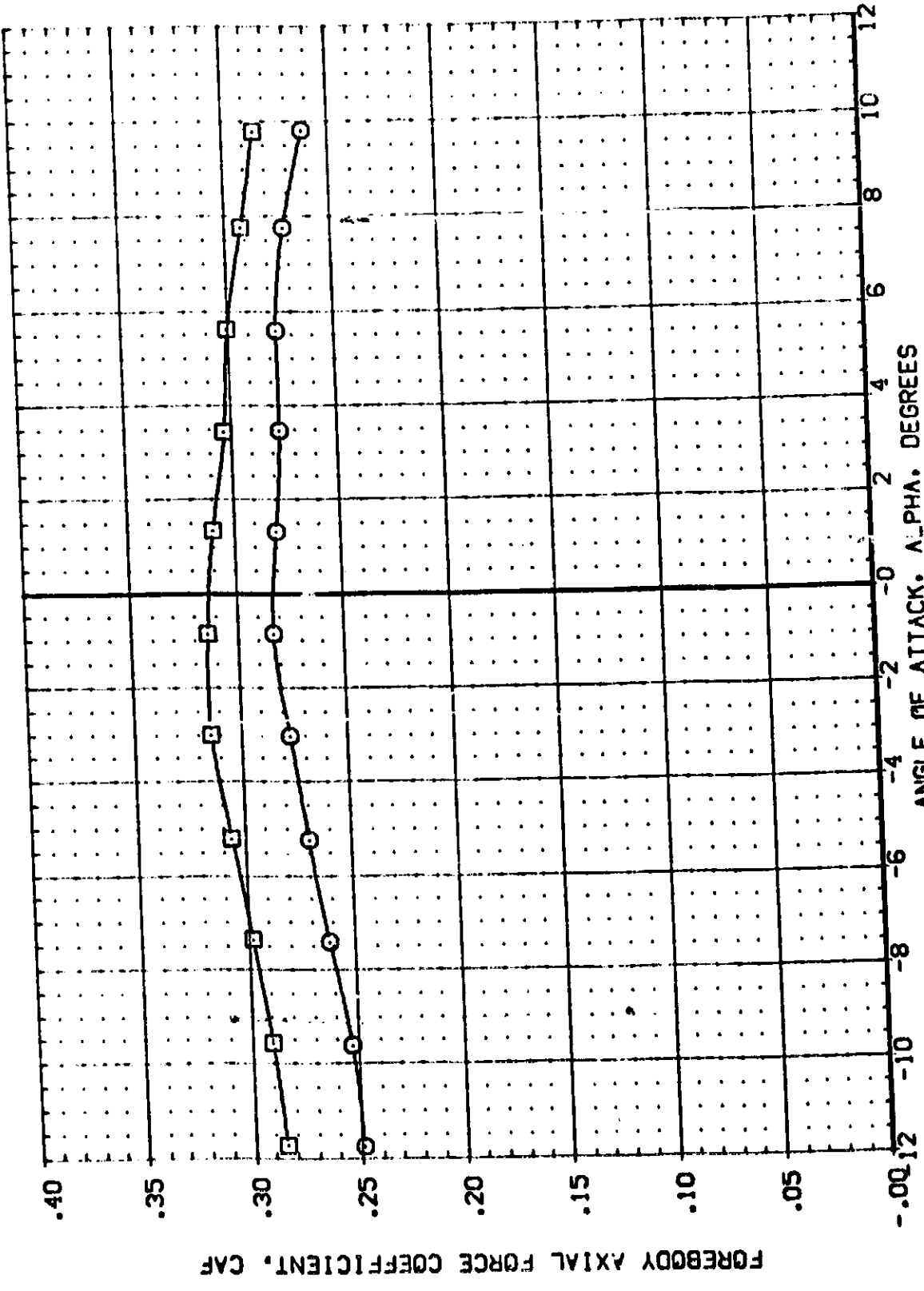
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
(F81031)	MSFC 566 (1A31F) PCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF	6.198
(F81013)	MSFC 566 (1A31F) PCR 0074 LV 03 19 S3	.500	.000	.136	.000	LREF	5.313
						BREF	5.313
						XMRP	2.545
						YMRP	.000
						ZMRP	.000
						SCALE	.004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
[F8:09:1]	Q	MSC 565 (1A3:1F)	MCR 0074 LV 03 T9 S3	.500	.500	.000	.000	.136	.000	SREF	6.198	SO. IN	
[F8:09:3]		MSC 566 (1A3:1F)	MCR 0074 LV 03 T9 S3	.500	.500	.000	.000	.136	.000	LREF	5.313	NN	
										SREF	5.313	NN	
										XMRP	2.548	NN	
										YMRP	.000	NN	
										ZMRP	.000	NN	
										SCALE	.004	NN	

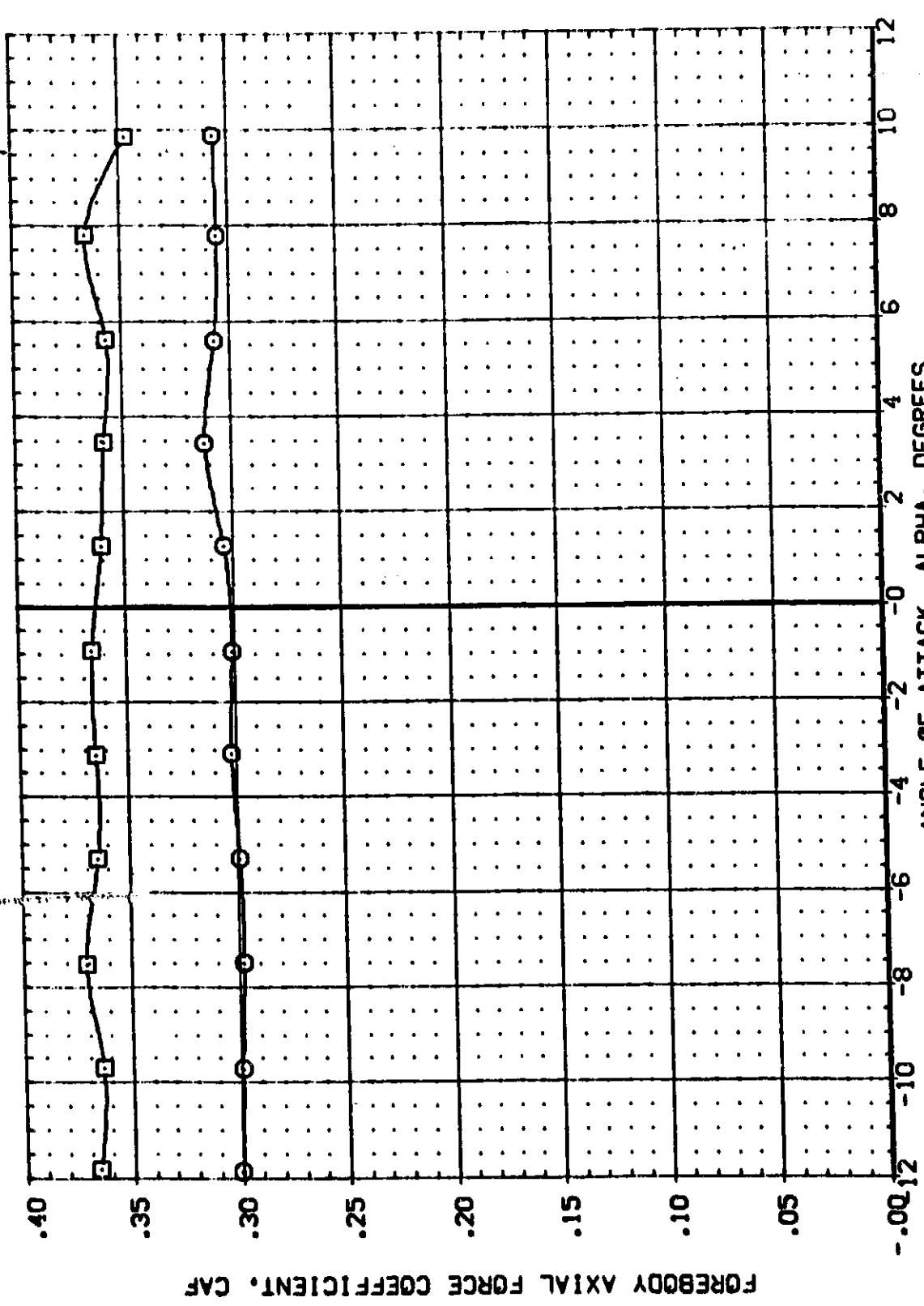


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(D)MACH = 1.25



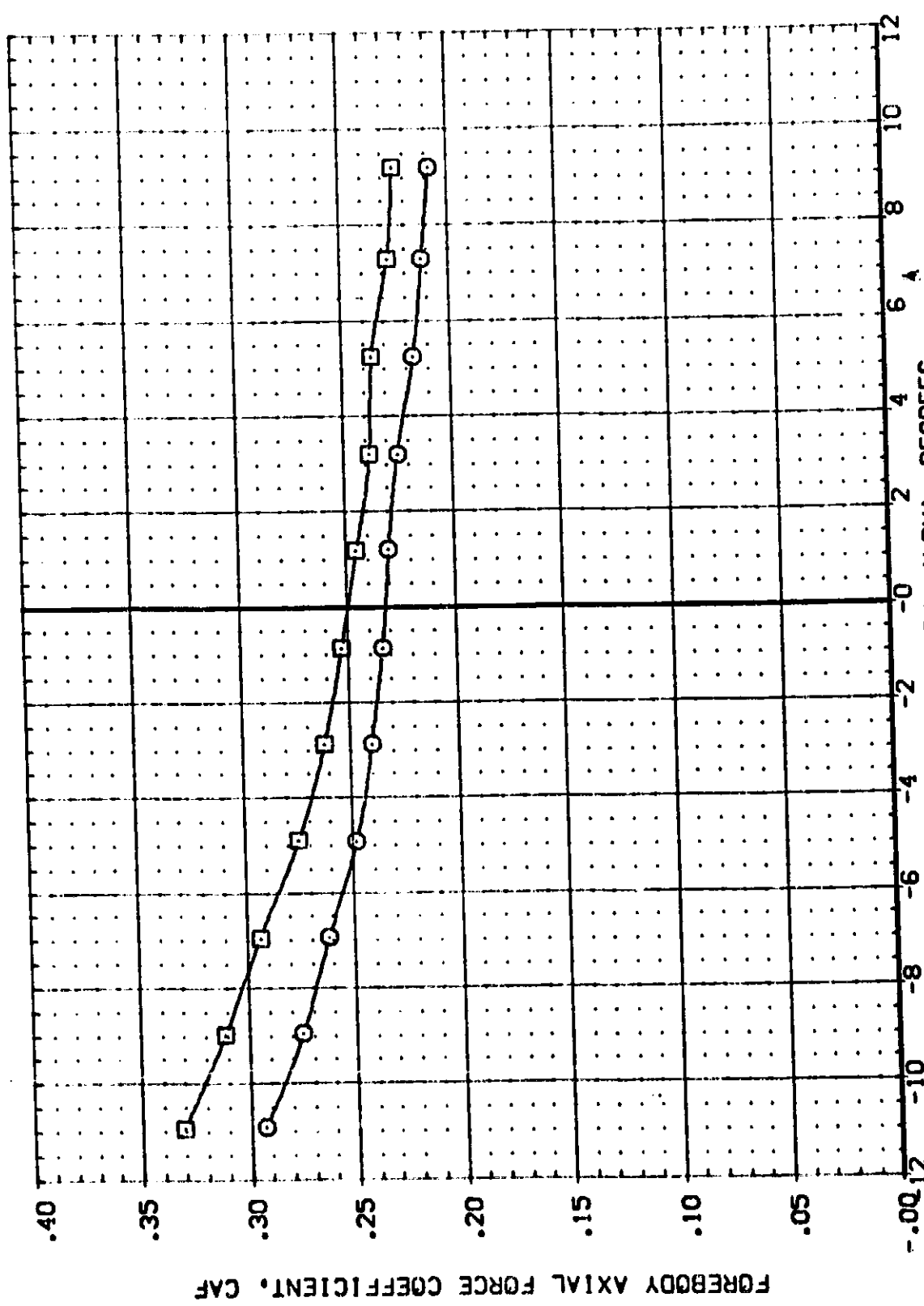
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
(F81081)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(F81013)	MSC 566 (1A31F) MCR 0074 LV 03 T9 S3 US	.500	.000	.136	.000	LREF	5.313
						BREF	5.313
						YMRP	2.549
						ZMRP	.000
						SCALE	.004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(E)MACH = 1.96

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORIGIN		X-SPB	DELTA Z	RUDDER	REFERENCE INFORMATION	
[F81081]	[F81081]	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3	.500	.500	.000	.136	.000	SREF	6.198
[F81013]	[F81013]	MSC 566 (1A31F)	MCR 0074 LV 03 T9 S3 US	.500	.500	.000	.136	.000	LREF	5.313
									BREF	5.313
									XMRP	2.548
									YMRP	.000
									ZMRP	.000
									SCALE	.004

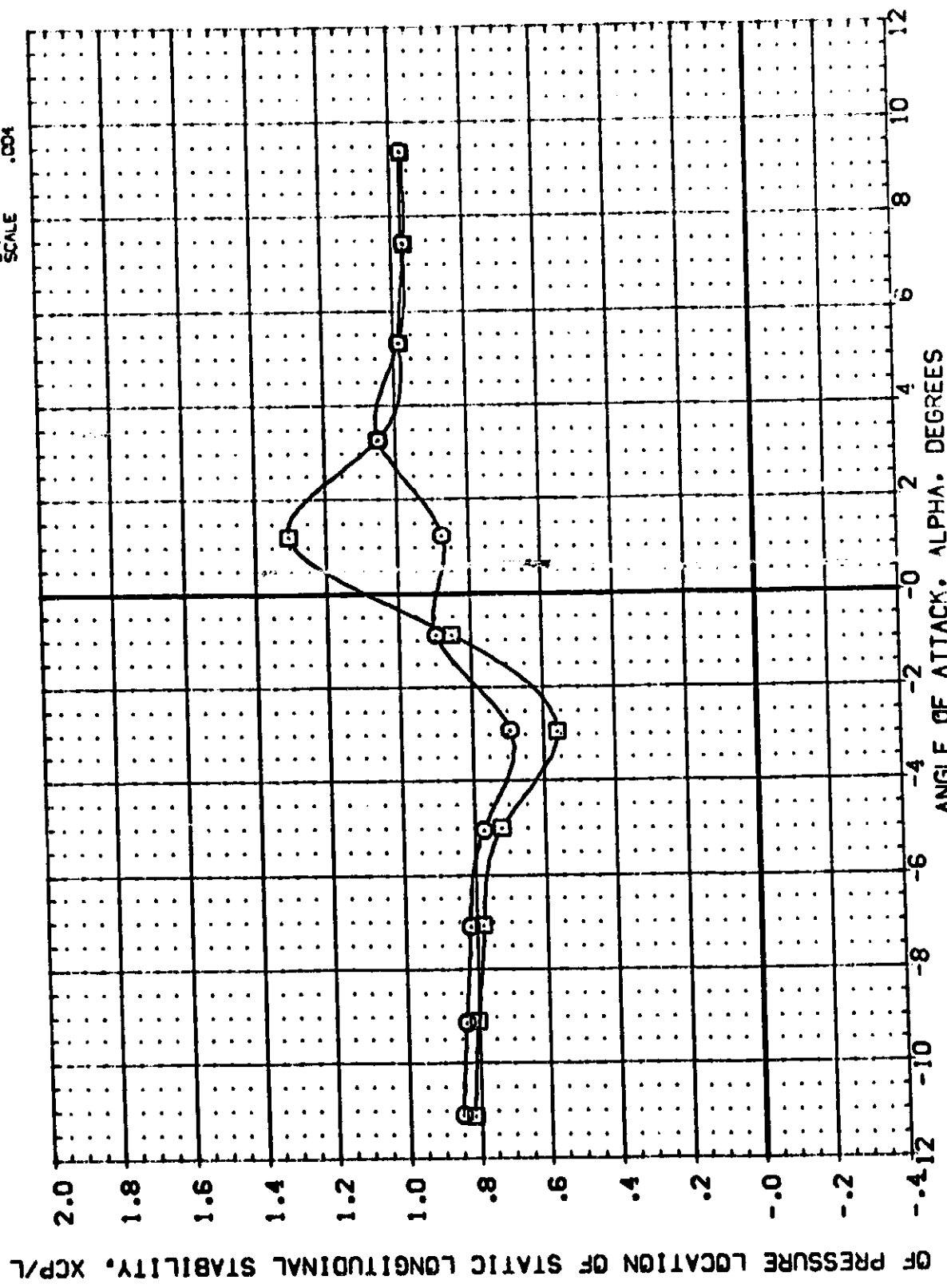


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(F)MACH = 4.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(F810B1)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	U-REF 6.198
(F81013)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	L-REF 5.313
						E-REF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL: (F81091)
 (F81013)

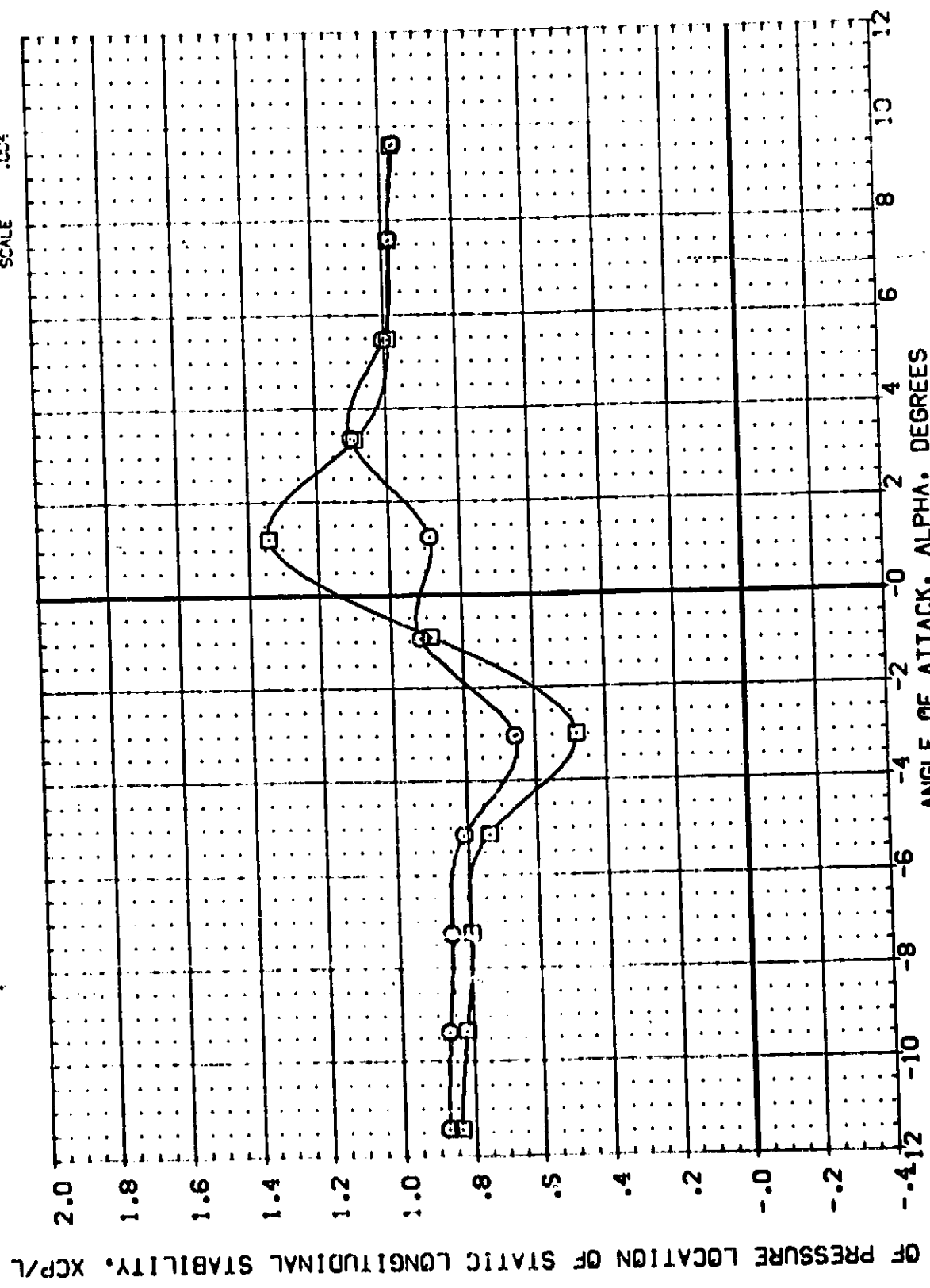
CONFIGURATION DESCRIPTION:
 MSFC 566 (131F) MCR 0074 LV C3 T9 S3 U5
 MSFC 566 (131F) MCR 0074 LV C3 T9 S3 U5

ORIGIN: X=500, Y=500

DELTA Z: .136, .136

RUDDER: .000, .000

REFERENCE INFORMATION:
 SREF: 5.198
 LREF: 5.313
 BREF: 5.313
 XGRP: 2.549
 YGRP: .000
 ZGRP: .000
 SCALE: .001

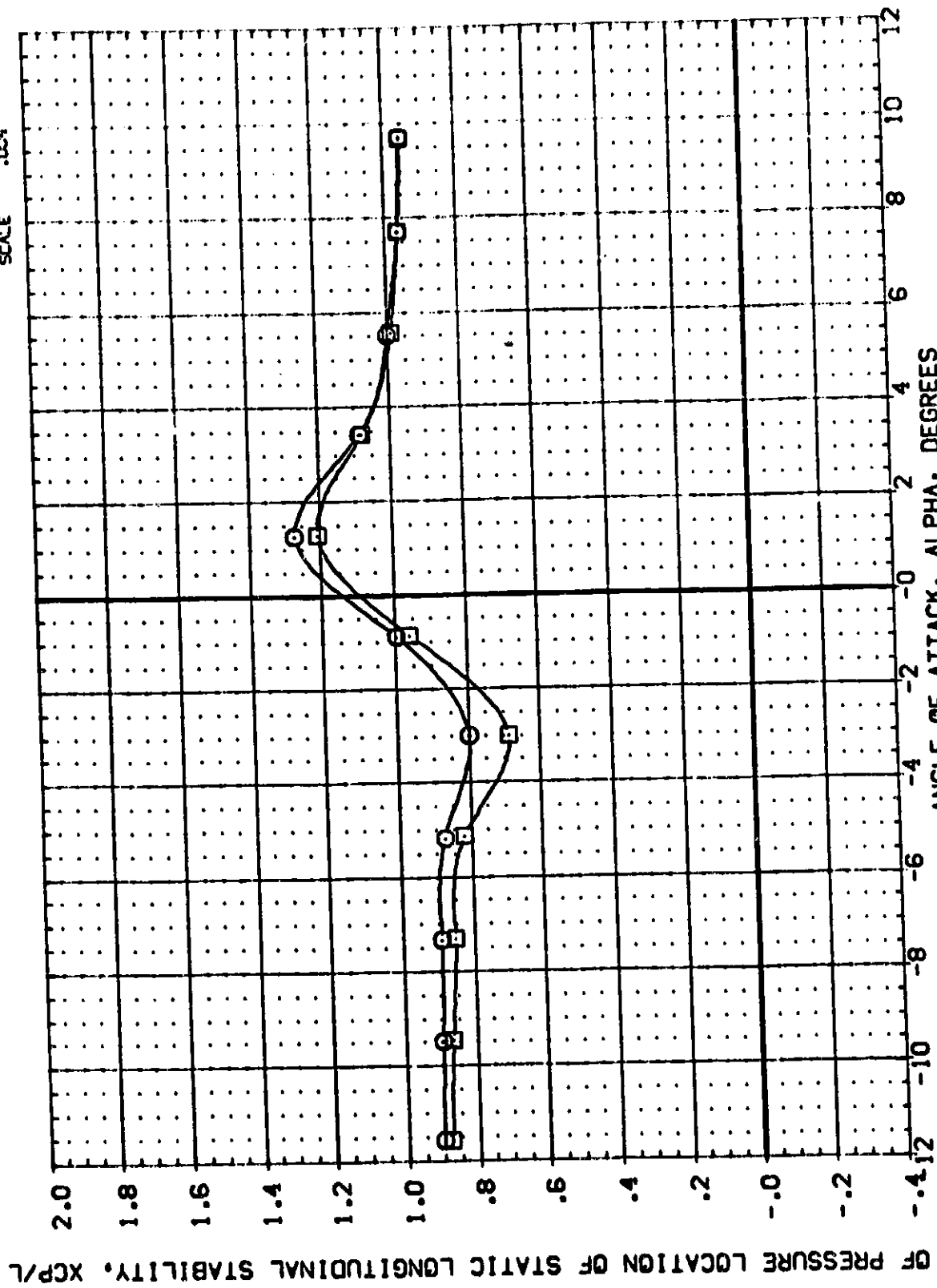


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.91



DATA SET SYMBL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(F81021)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(F81013)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3 US	.500	.000	.136	.000	LREF 5.313
						BREF 5.313
						XREF 2.549
						YREF .000
						ZREF .000
						SCALE .004

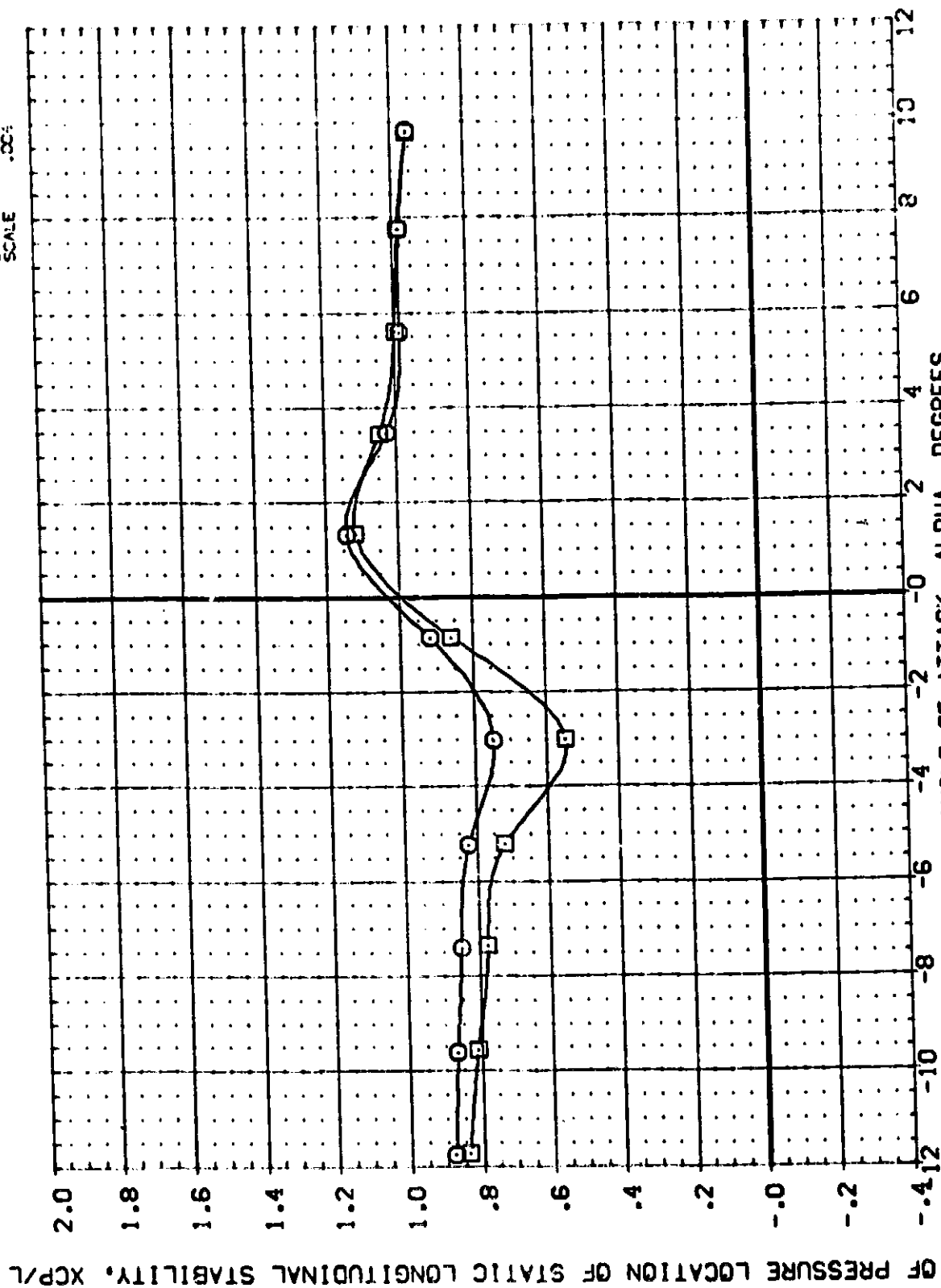


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (F810B1) C MSFC 566 (IA31F) MCR 0074 LV 03 19 S3 US
 (F81013) C MSFC 566 (IA31F) MCR 0074 LV 03 19 S3 US

ORIGIN X-SRB DELTA Z R-DOOR REFERENCE INFORMATION
 .500 .000 .000 SREF 6.19F SD. IN
 .500 .000 .000 LBREF 5.313
 .500 .000 .000 BRREF 5.313
 XMRD 2.54E
 YMRD .000
 ZMRD .000
 SCALE .000



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.25



DATA SET SYMBOL: (F81081) (F81013)

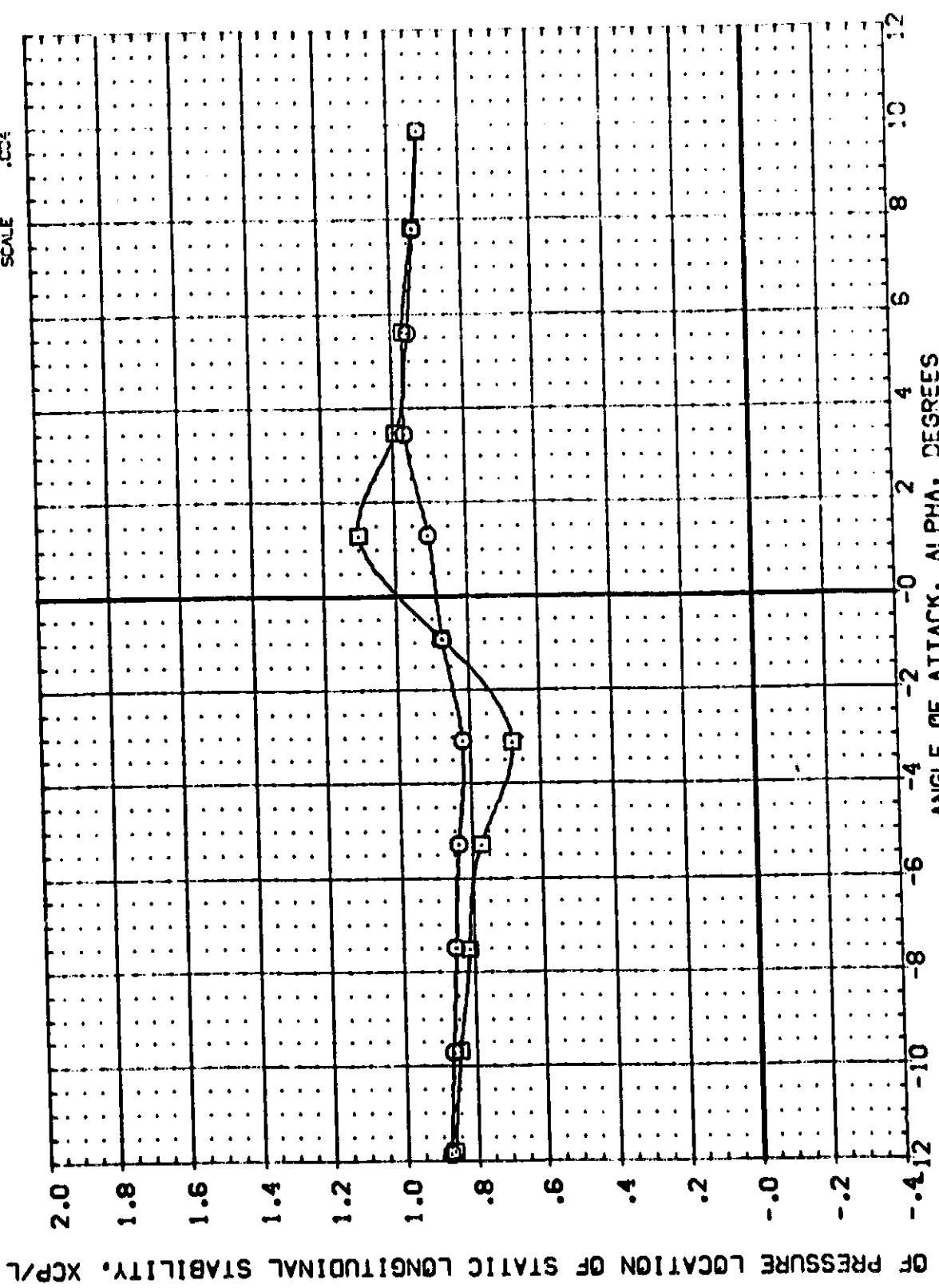
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBITAL X-SYS: .500 .000 .000 .500

DELTA Z: .136 .136

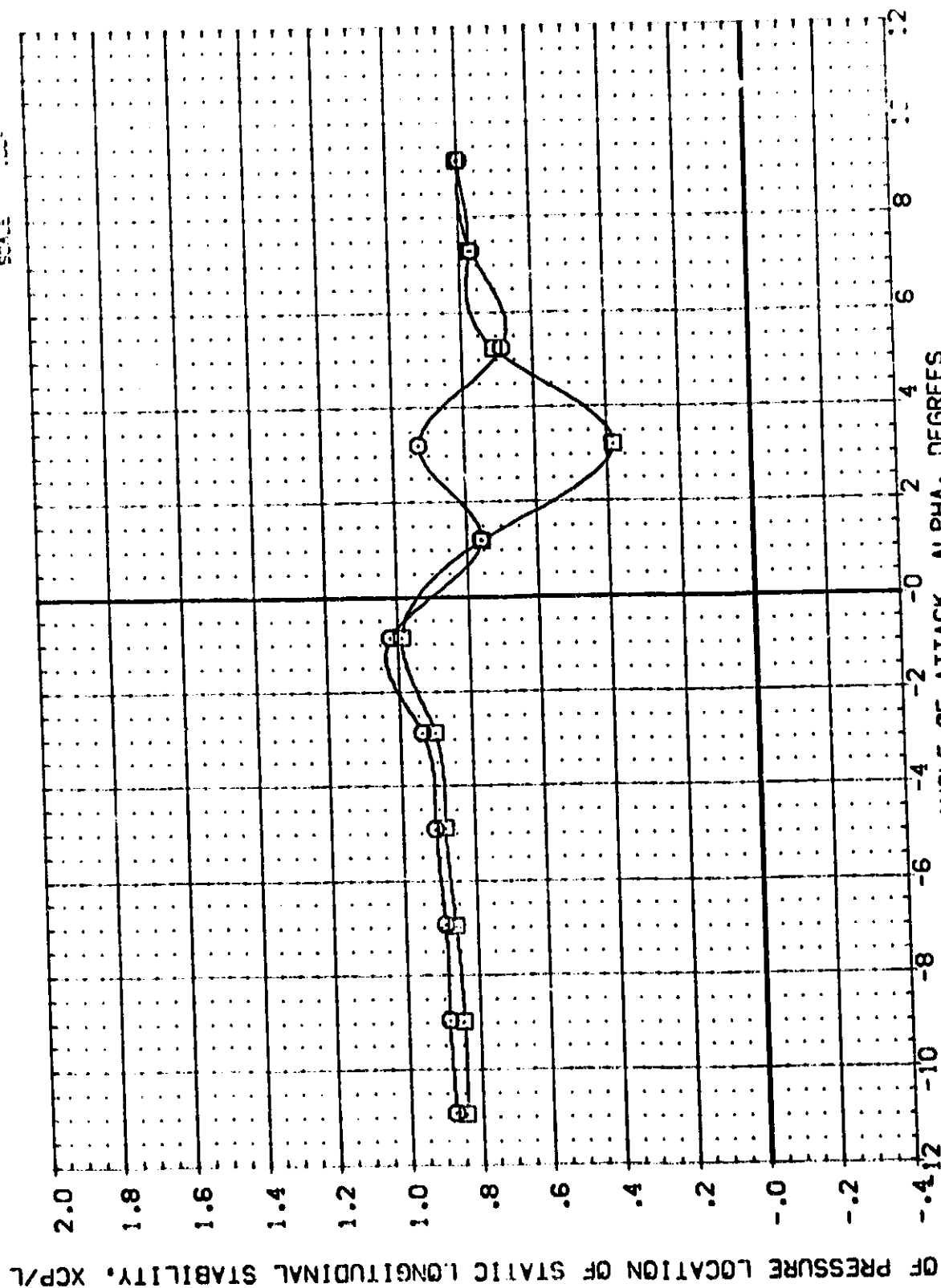
RUDDER: .000 .000

REFERENCE INFORMATION: SREF 6.198 SD. IN LREF 5.313 W. N. BREF 5.313 Z. N. XMRP 2.543 YMRP .000 ZMRP .000 SCALE .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.96

[illegible]

EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

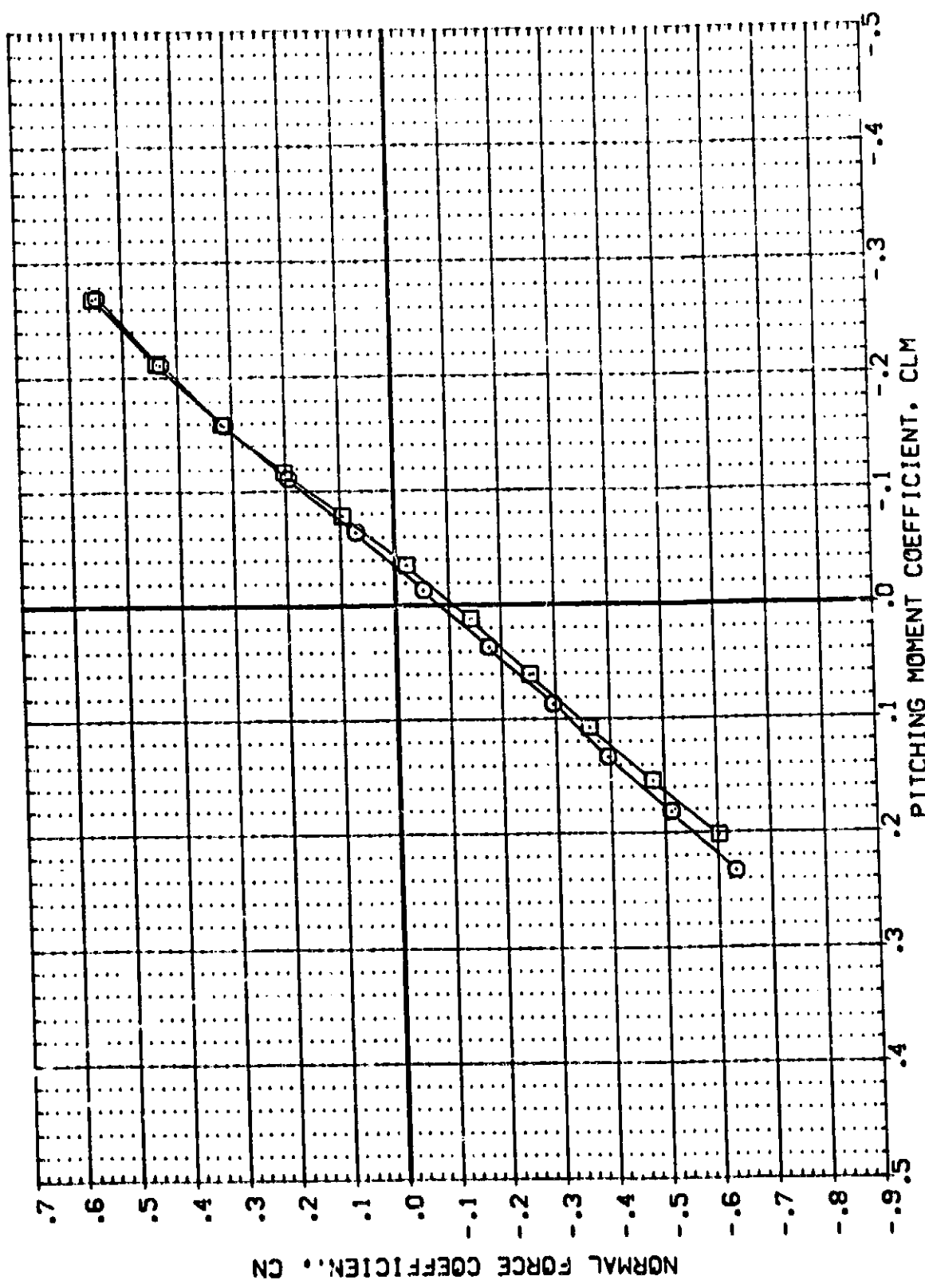
$$\text{MACH} = 4.96$$

DATA SET SYMBOL: (F810B1) (F81013)

CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US
 MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US

ORBITAL X-SRS DELTA Z RUDDER REFERENCE INFORMATION

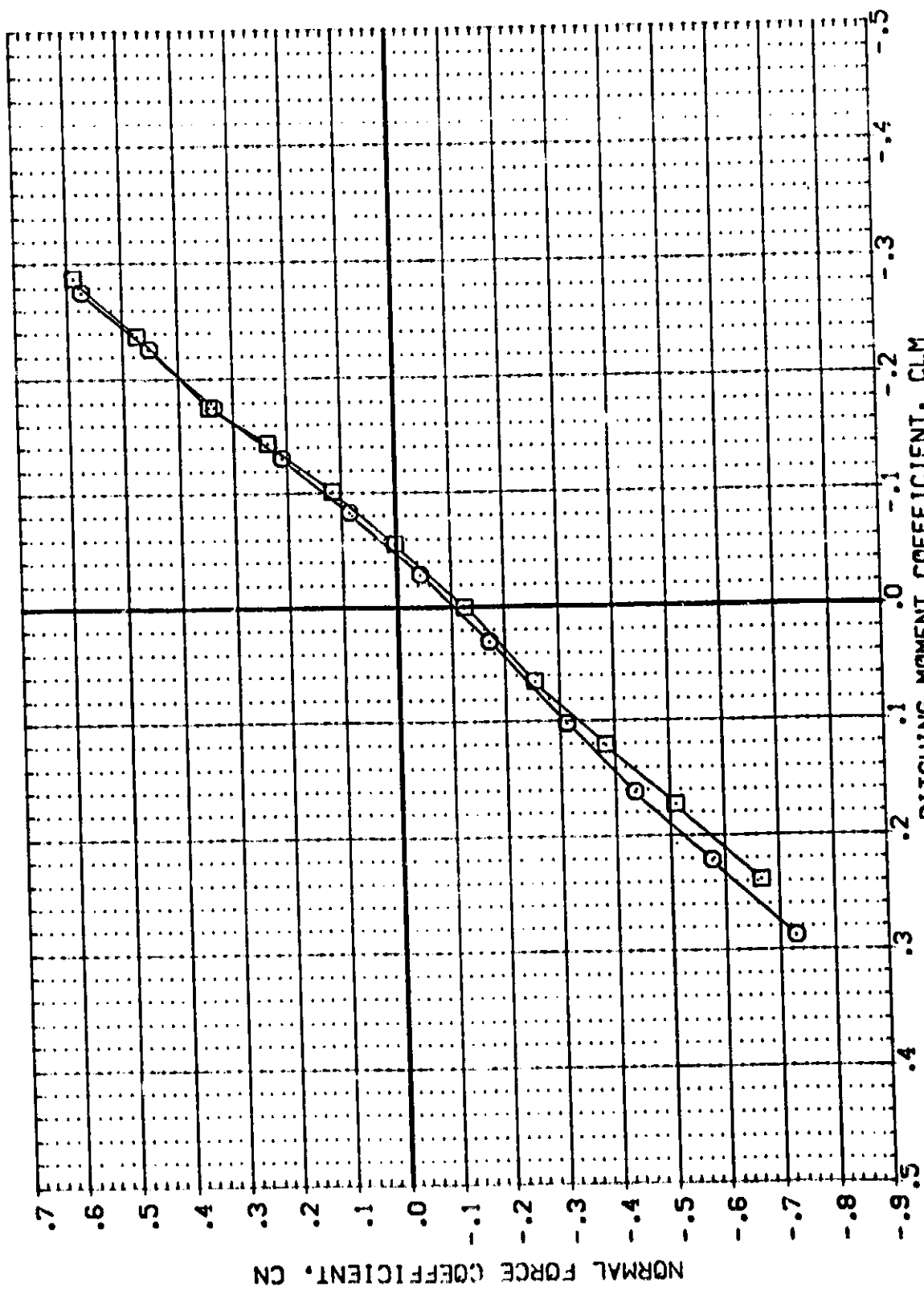
ORBITAL	X-SRS	DELTA Z	RUDDER	SREF	SC
.500	.000	.136	.000	6.198	.IN.
.500	.000	.136	.000	5.313	.IN.
				2.548	.IN.
				.000	.IN.
				.000	.IN.
				.000	.IN.
				.004	.IN.



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(M)MACH = 0.60

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION
(F8:081)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.196
(F8:013)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3 U5	.500	.000	.136	.000	LREF 5.313
						BRF 5.313
						XMRP 2.546
						YMRP .000
						ZMRP .000
						SCALE .001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.9:

DATA SET SYMBOL: (F810B1) (F81013)

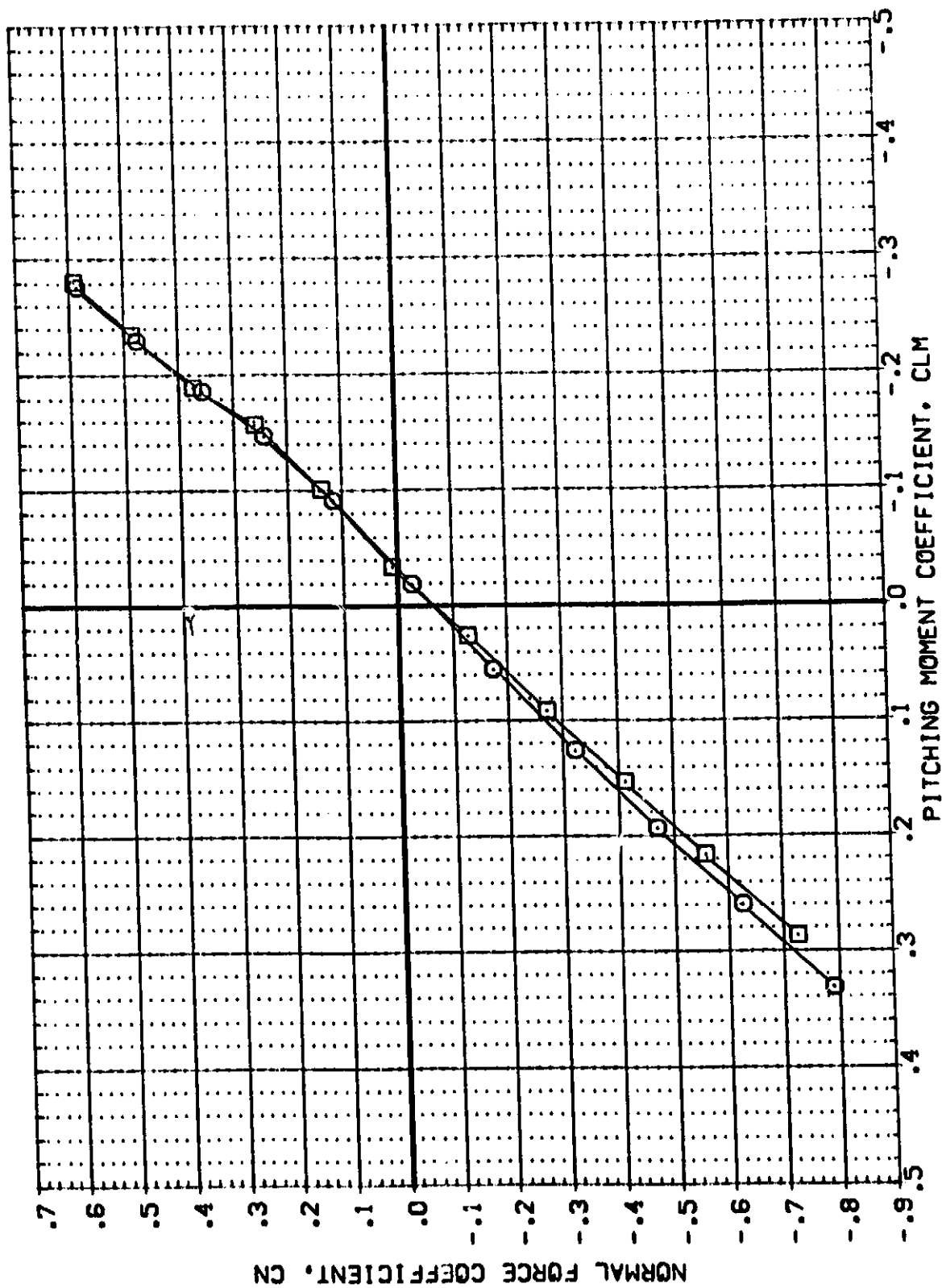
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US
MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBIT: X-SRB .500
 Y-SRB .500

DELTA Z: .136
 .136

RUDDER: .000
 .000

REFERENCE INFORMATION:
SREF: 6.198 IN.
LREF: 5.313 IN.
BREF: 5.313 IN.
XMRP: 2.548 IN.
YMRP: .000 IN.
ZMRP: .000 IN.
SCALE: .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

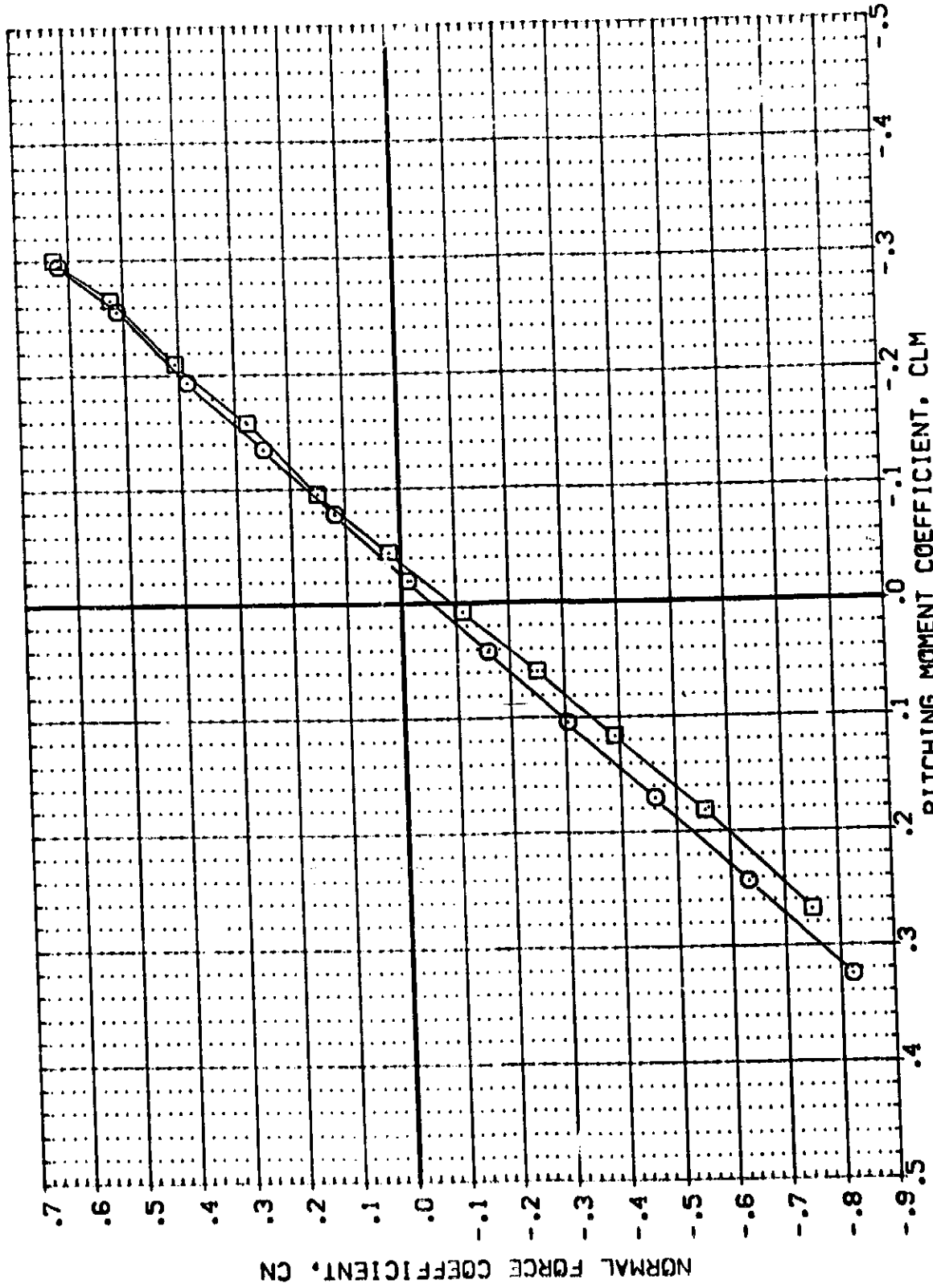
(C)MACH = 1.05

DATA SET SYMBOL: (F8)031) (F8)033)

CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTA Z	RUDDER	SREF	5.196	SG	1.0
	.000	.136	.000	LREF	5.312	IN	1.0
	.000	.136	.000	BREF	5.312		
				XMRP	2.548		
				YMRP	.000		
				ZMRP	.000		
				SCALE	.001		

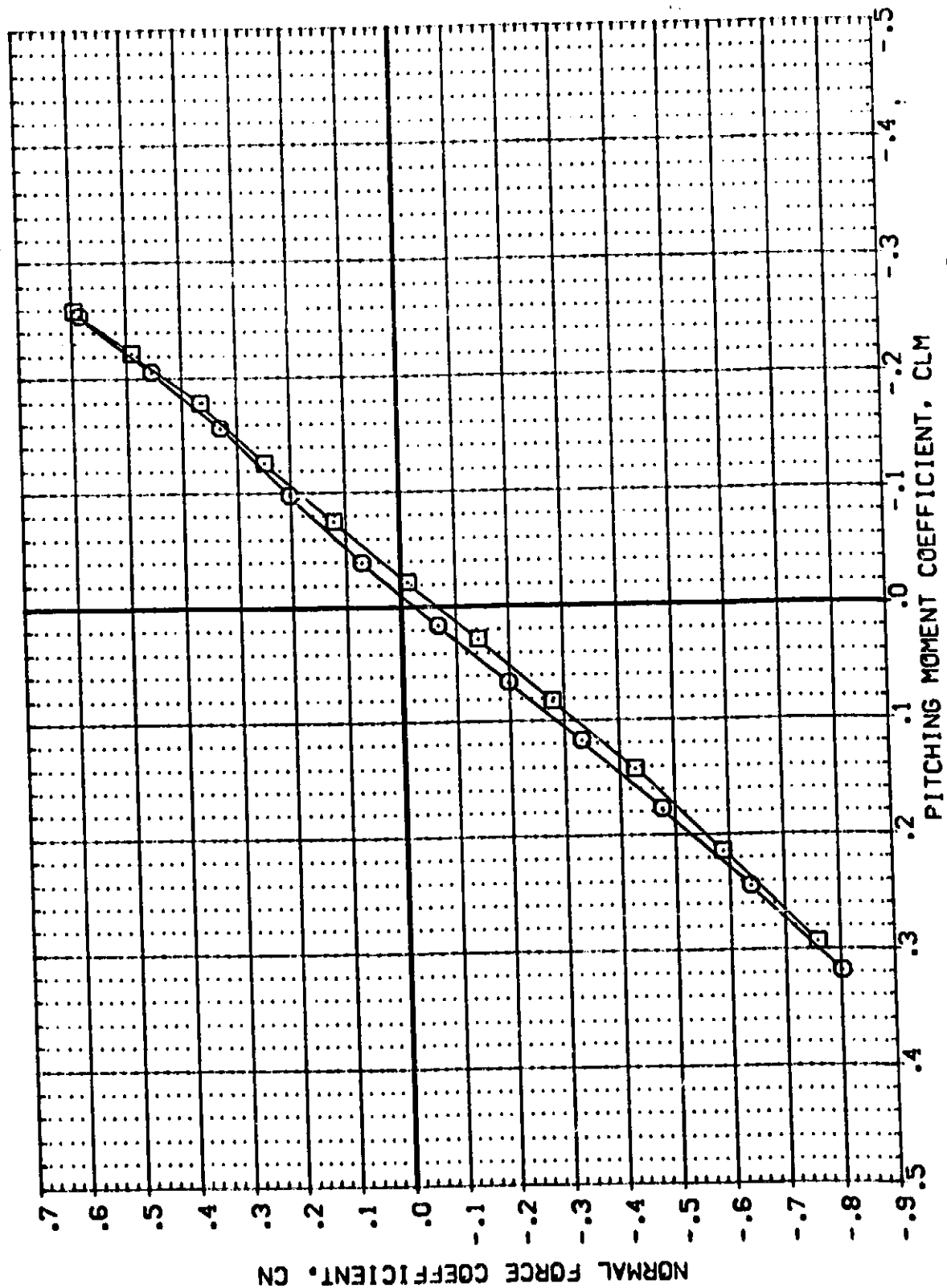


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(D)MACH = 1.25



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBIT	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(F81081)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(F81013)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US	.500	.000	.136	.000	LREF 5.313
						BREF 5.313
						YMRP 2.549
						ZMRP .000
						SCALE .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

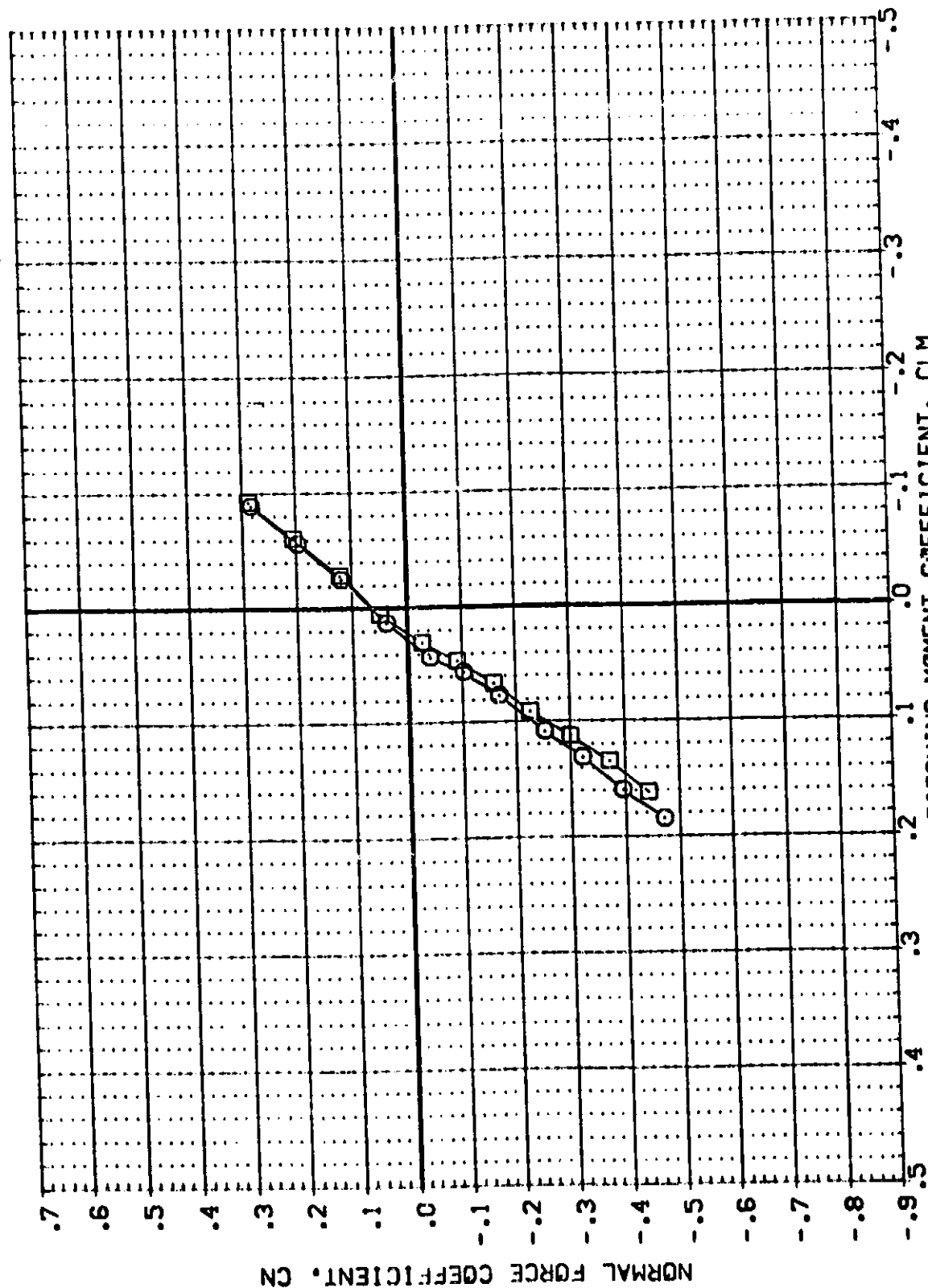
(E)MACH = 1.96

DATA SET SYMBOL: (F810912) (F81013)

CONFIGURATION DESCRIPTION: MFC 566 (1A31F) MCR 0074 LV 03 T9 S3
MFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
.500	.000	.136	.000	SREF 6.198
.500	.000	.136	.000	LREF 5.313
				BREF 5.313
				XREF 2.249
				YREF 1.000
				ZREF 1.000
				SCALE 1.000



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(F)MACH = 4.96



DATA SET SYMBOL: (F810B1) (F81013)

CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

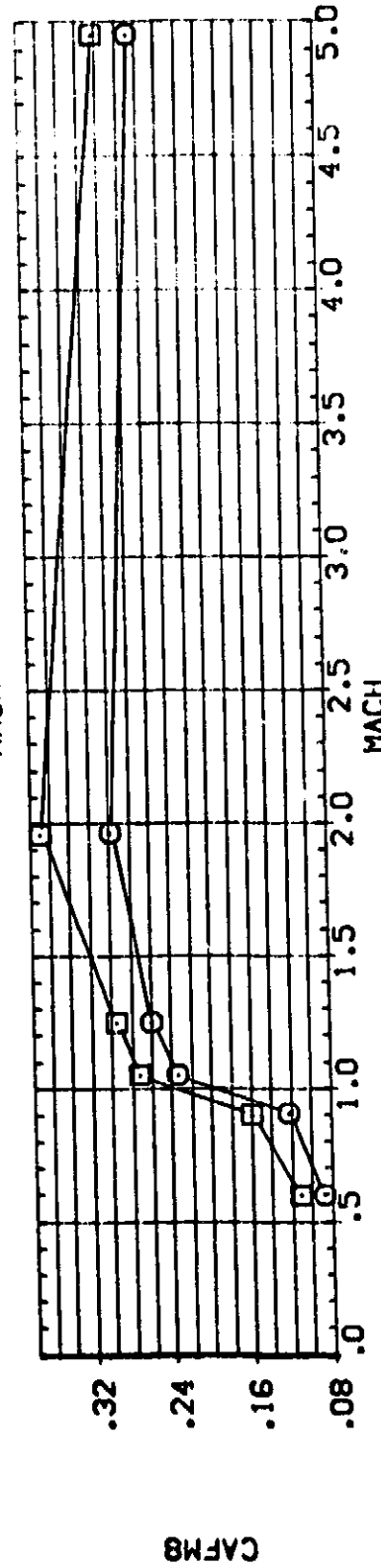
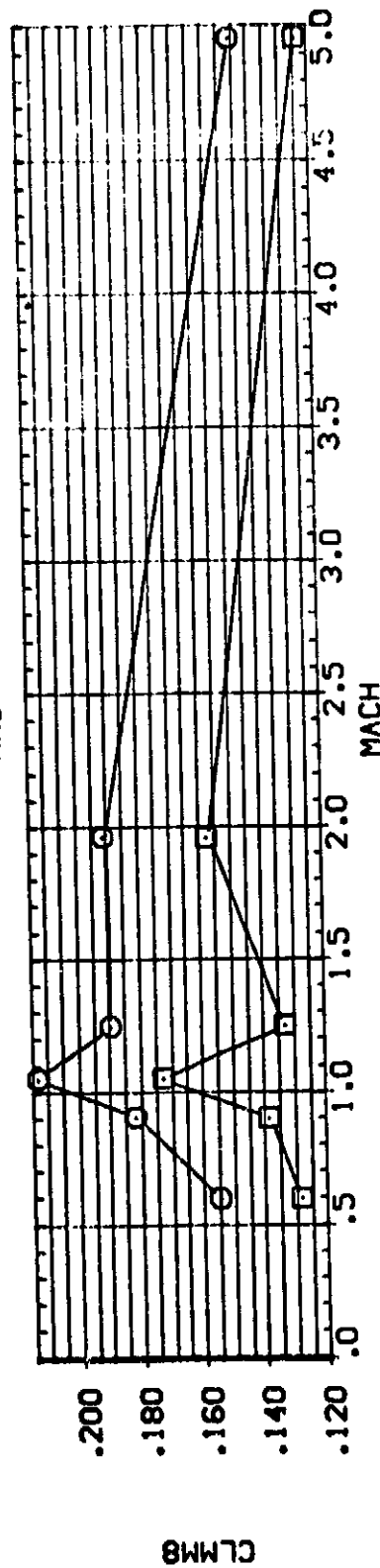
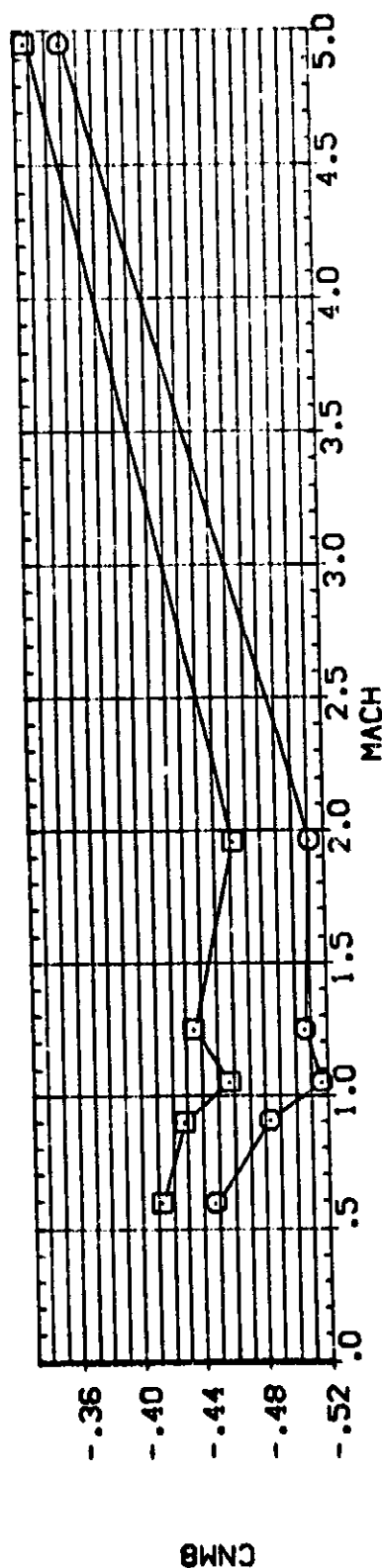
ORBIT: X-SRB .000 .000 .500 .500

DELTA Z: .136 .136

RUDDER: .000 .000

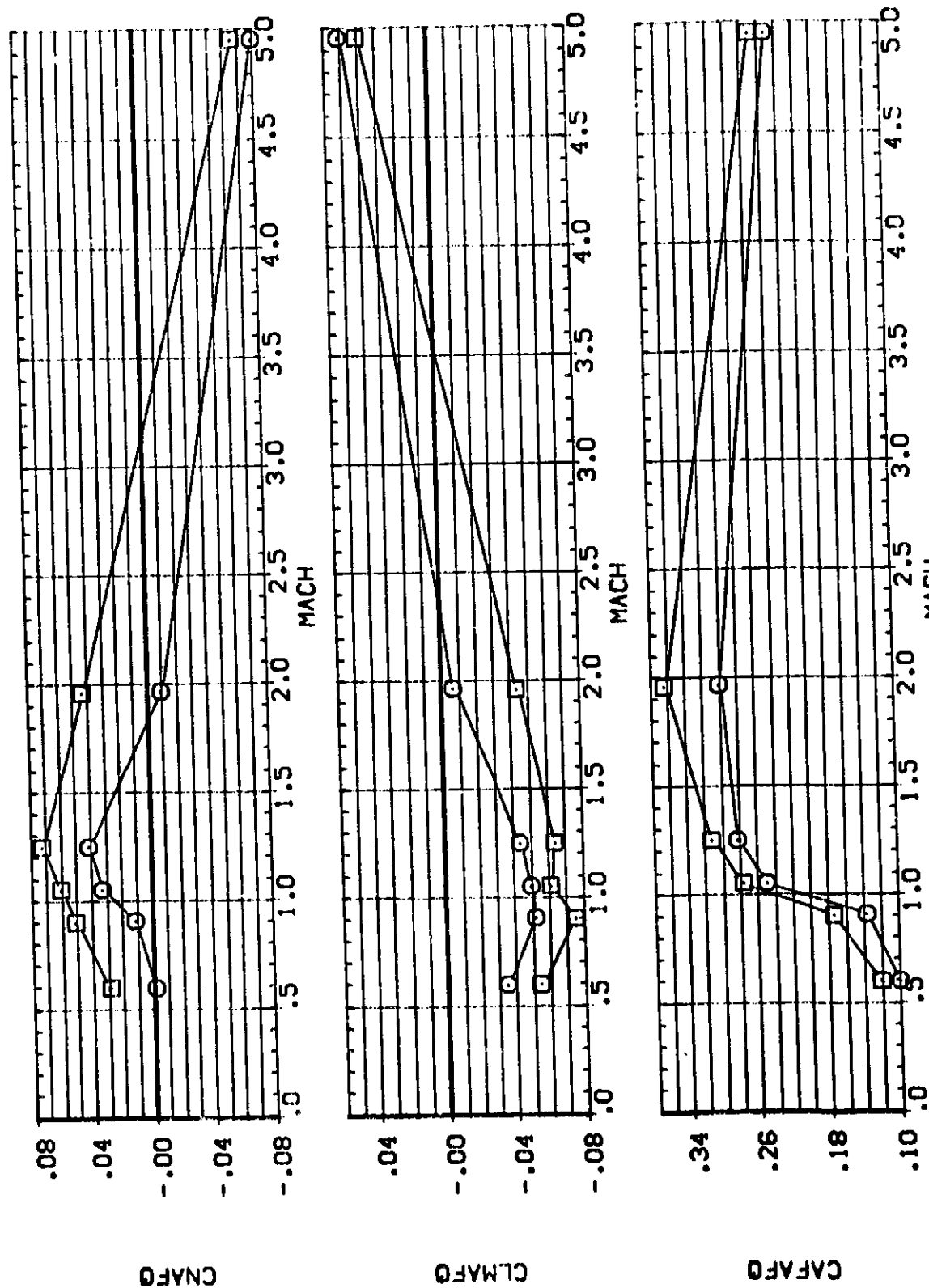
REFERENCE INFORMATION: SREF 6.196 LREF 5.313 BREF 5.313 XPROP 2.546 YPROP .000 ZPROP .000 SCALE .001

SG: IN 2.2 2.2 2.2 2.2



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: 1
 CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MCR 0074 LV 03 T9 S3 U6
 REFERENCE INFORMATION: SREF 6.198 SO: IN
 LREF 5.313 IN: IN
 BREF 5.313 IN: IN
 XMRP 2.546 IN: IN
 YMRP .000 IN: IN
 ZMRP .000 IN: IN
 SCALE .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

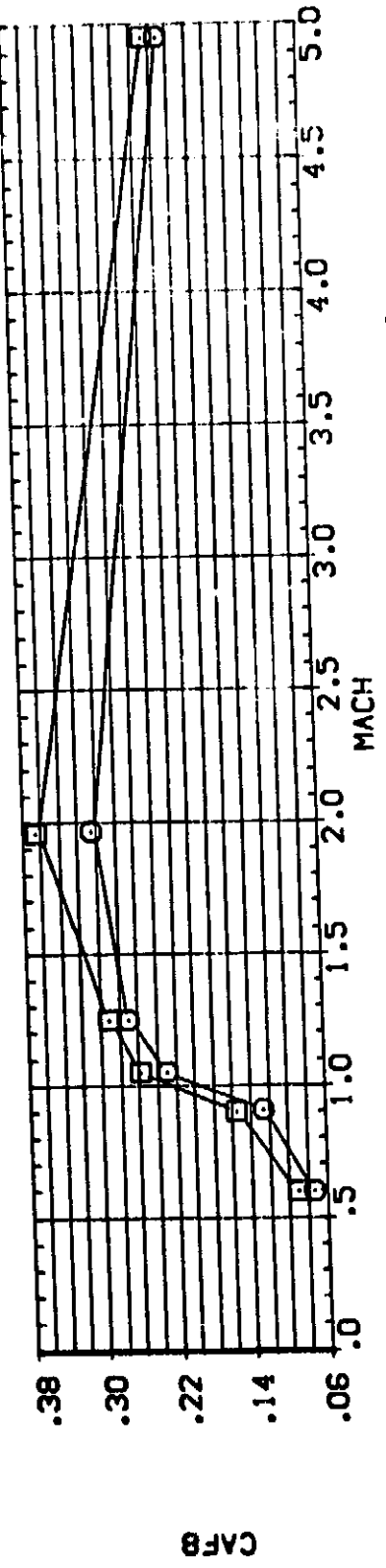
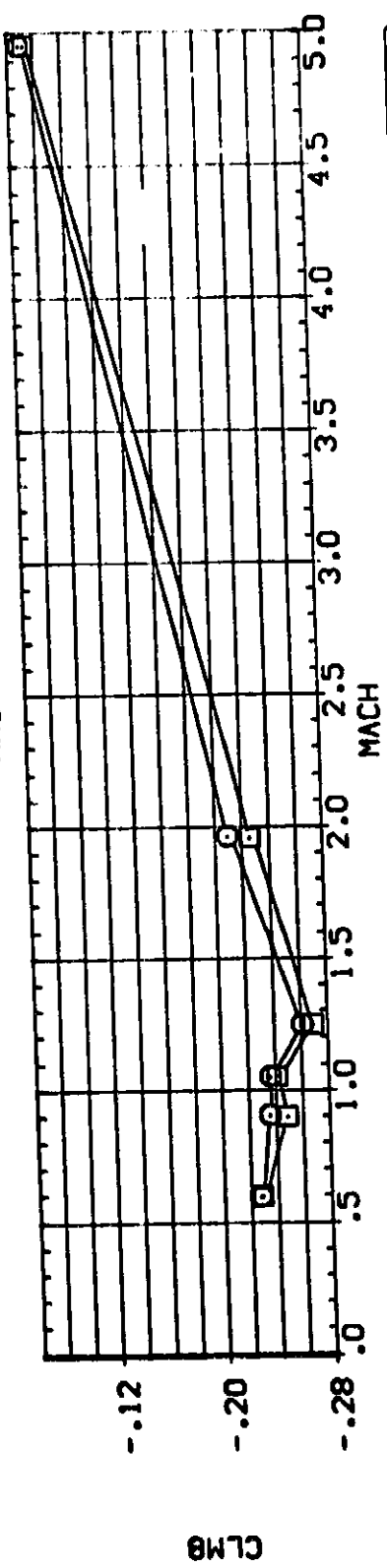
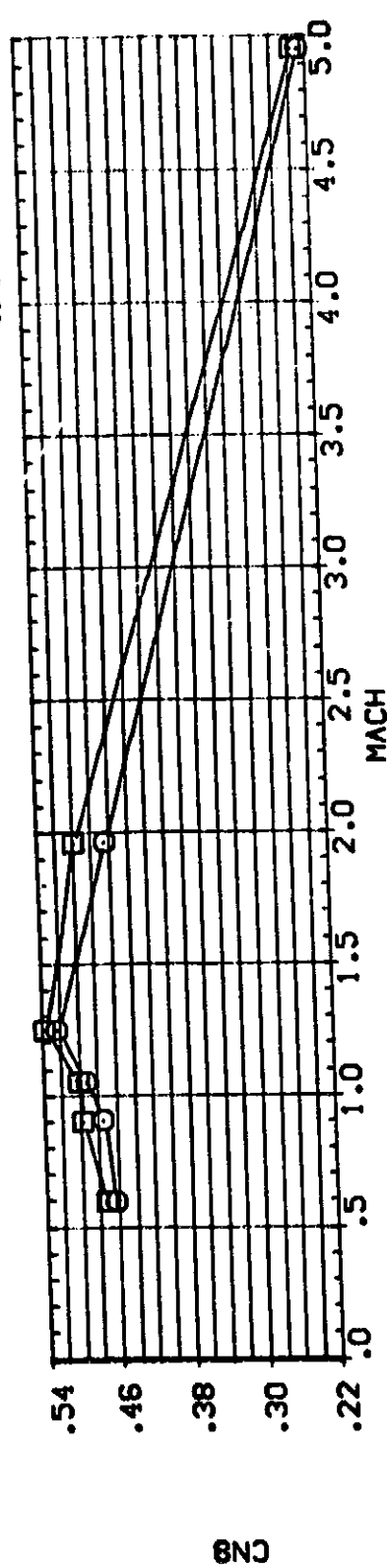


DATA SET SYMBOL: (F81081) (F81013)

CONFIGURATION DESCRIPTION: MFC 566 (1A31F) MCR 0074 LV 03 19 53 US
MFC 566 (1A31F) MCR 0074 LV 03 19 53 US

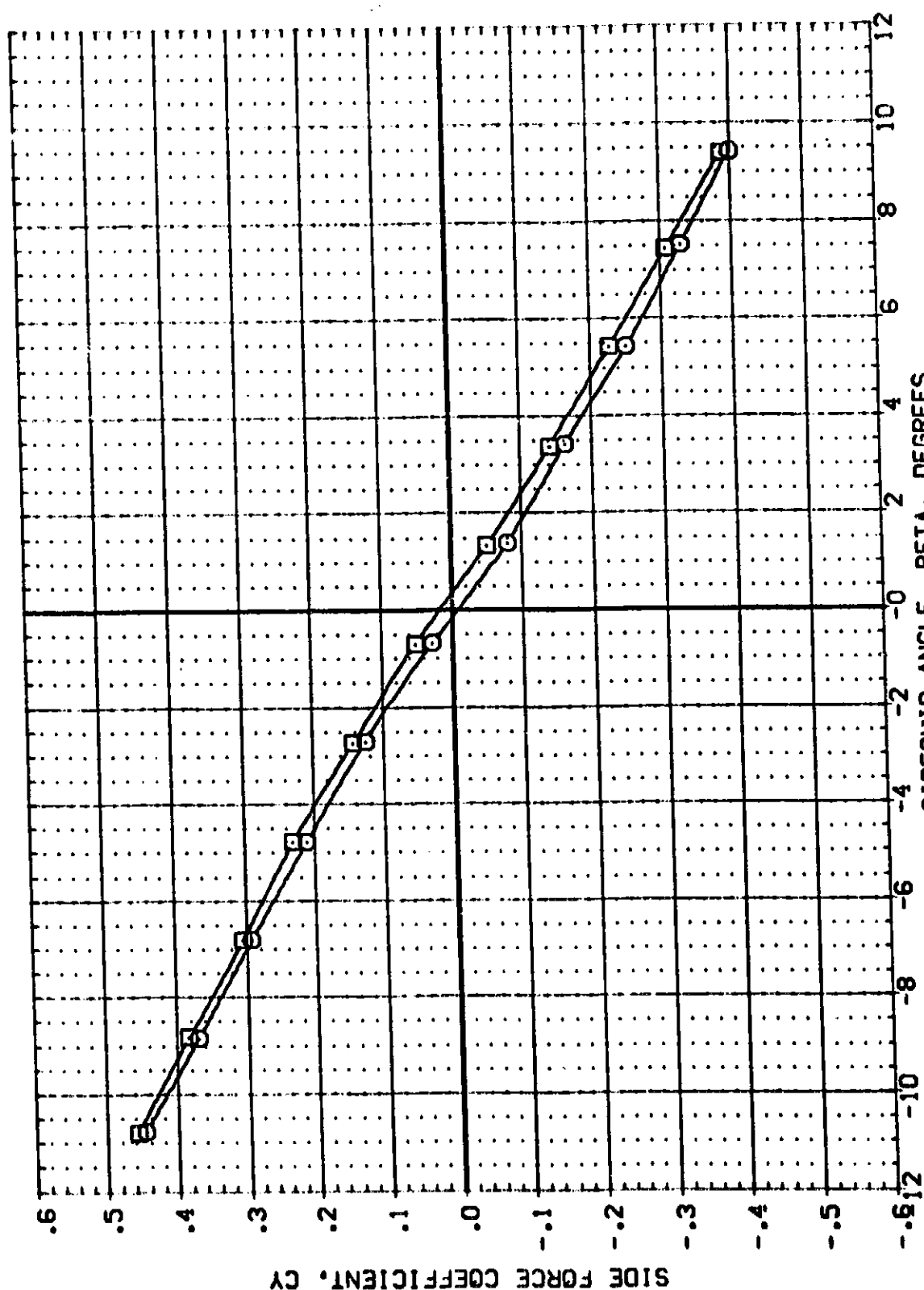
DRAGINC X-SRB DELTA Z RUDDER REFERENCE INFORMATION

DRAGINC	X-SRB	DELTA Z	RUDDER	SREF	SO. IN
.500	.000	.136	.000	6.198	IN.
.500	.000	.136	.000	5.313	IN.
				5.313	IN.
				2.546	IN.
				.000	IN.
				.000	IN.
				.004	IN.



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
{281002}	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
{581014}	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3 US	.500	.000	.136	.000	LREF 9.313
						BREF 9.313
						XMRP 2.546
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(M)MACH = 0.60

DATA SET SYMBOL: (281002) (DB1014)

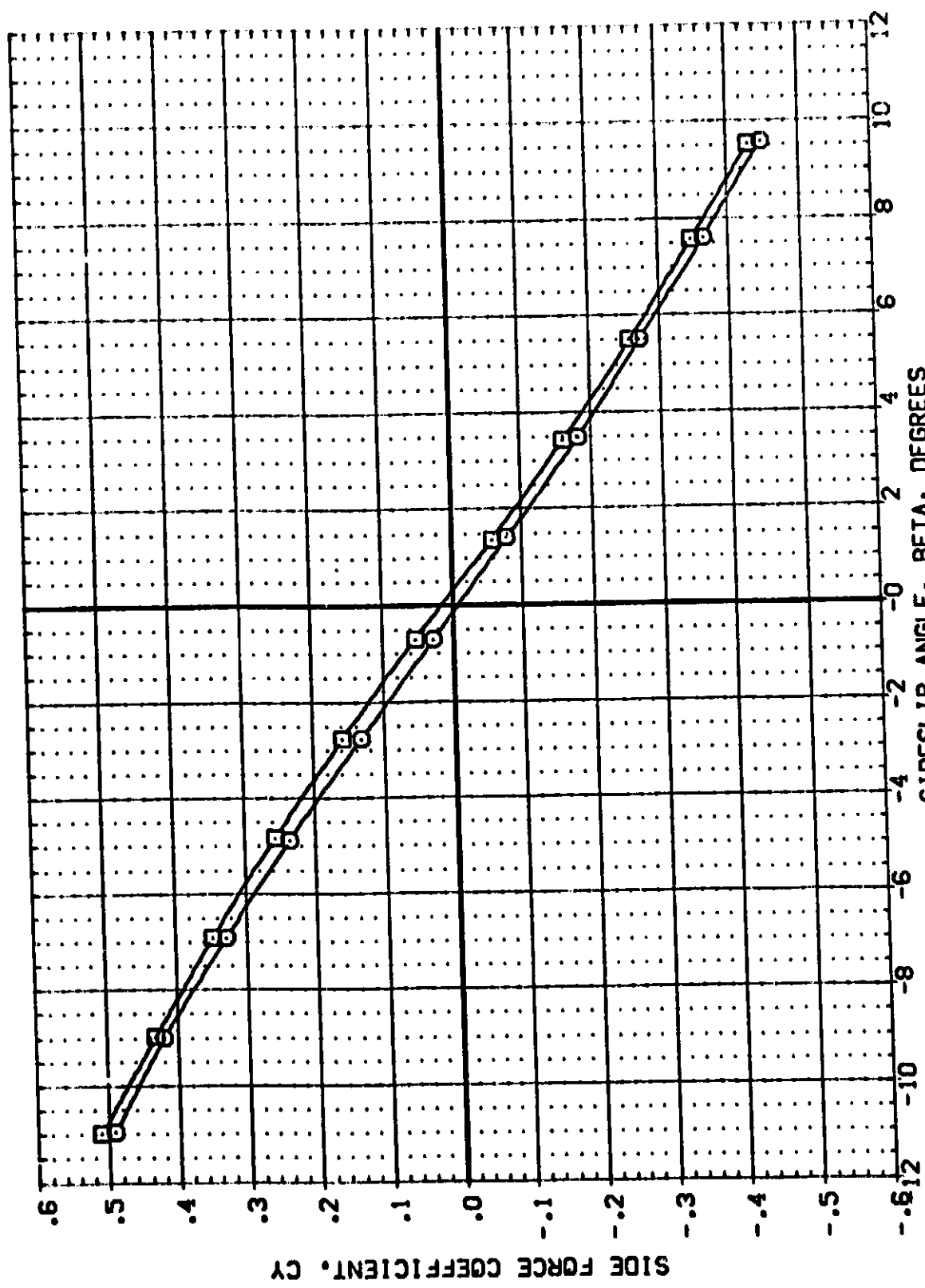
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US

ORBITAL: X-SRB .000 .000 .500 .500

DELTA Z: .136 .136

RUDDER: .000 .000

REFERENCE INFORMATION: SREF 6.198 SD. IN 2.22222
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004



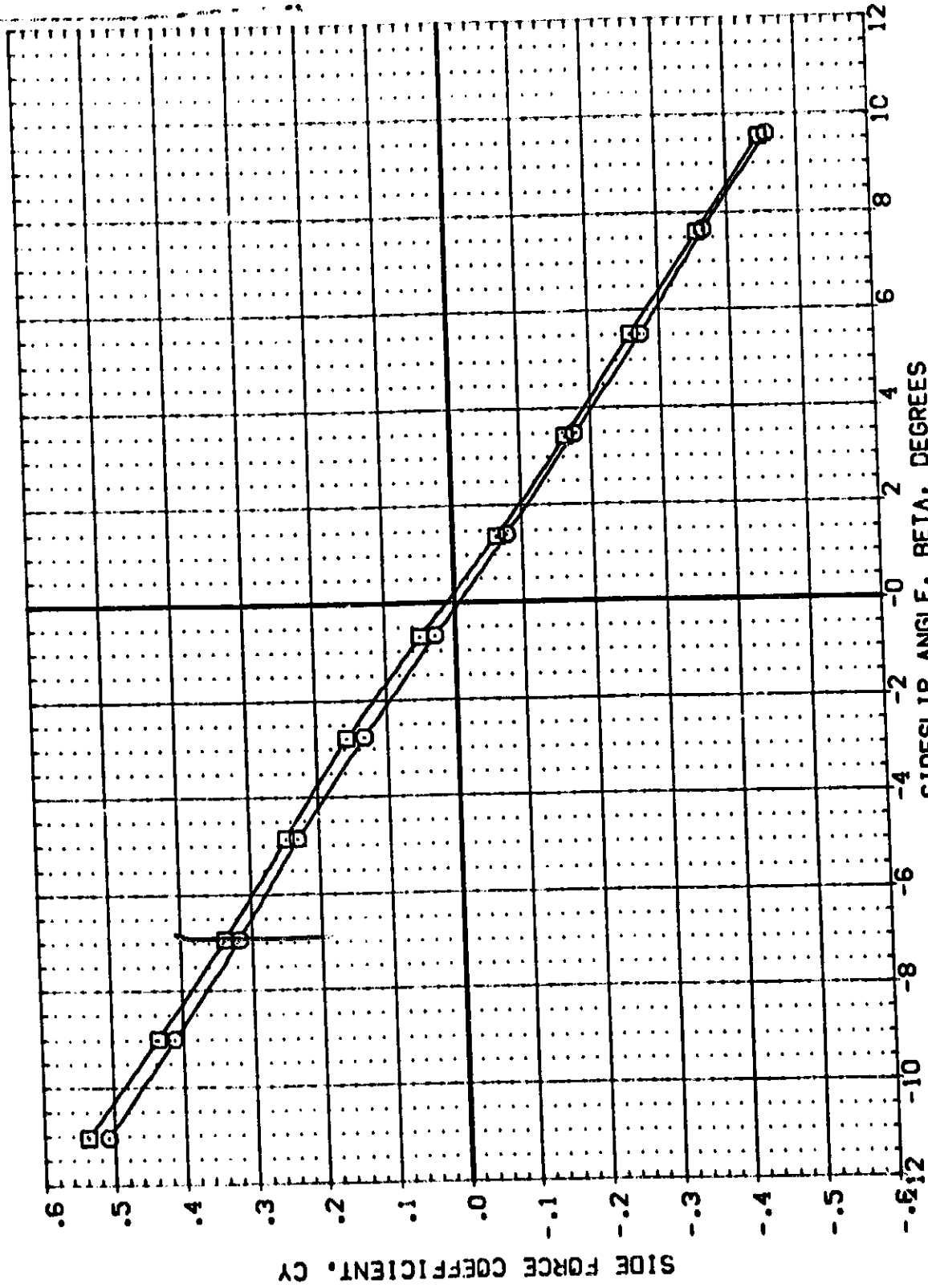
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

DATA SET SYMBOL: (281002) (381014) CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 U5 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 U5

ORBITAL X-9RB DELTAZ RUDDER REFERENCE INFORMATION


ORBITAL	X-9RB	DELTAZ	RUDDER	REFERENCE INFORMATION
.500	.000	.136	.000	SREF 6.198
.500	.000	.136	.000	LREF 5.313
				BREF 5.313
				XREF 2.548
				YREF .000
				ZREF .000
				SCALE .004



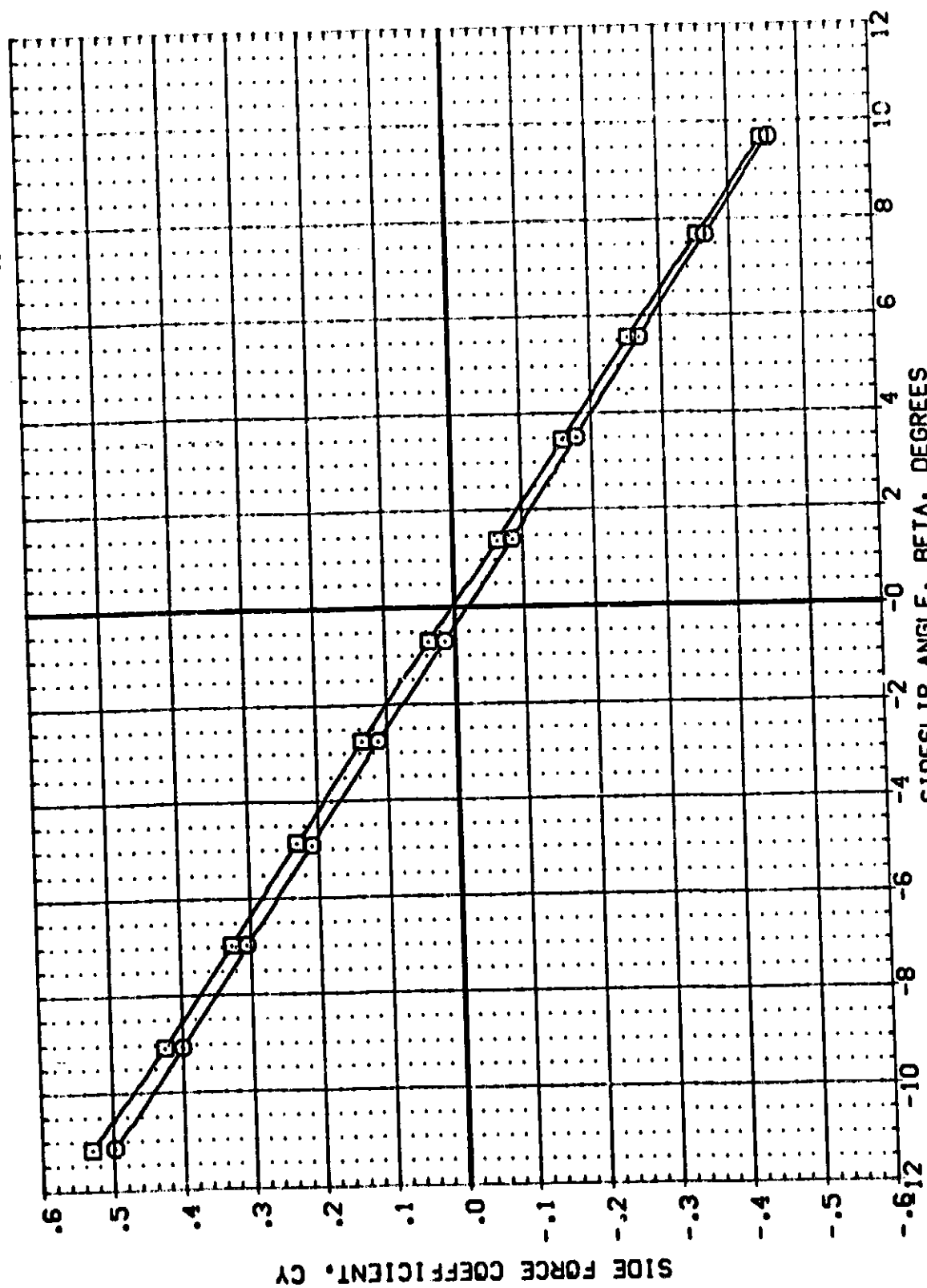
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05



DATA SET SYMBOL: (281002) (081014) 
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 TS 53 US
MSFC 566 (1A31F) MCR 0074 LV 03 TS 53 US
REFERENCE INFORMATION: SRE: 6.198 SQ. IN: 7.722
LREF: 5.313
BREF: 5.313
XPRP: 2.548
YPRP: .000
ZPRP: .000
SCALE: .004

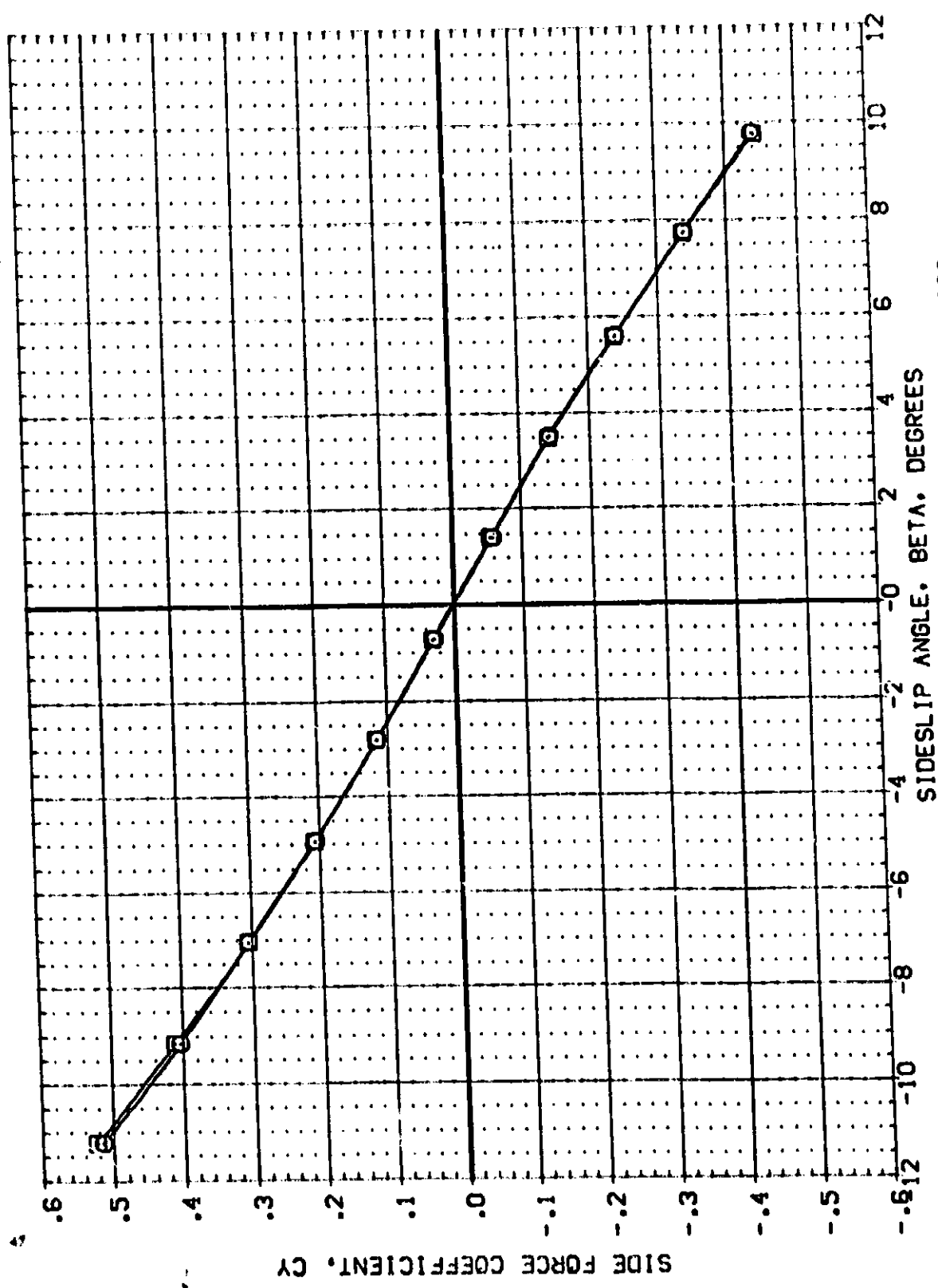
ORBITING X-SRB DELTA Z RUDDER
.500 .000 .000
.500 .000 .000



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(CD)MACH = 1.25

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
[28:002]	[08:014]	MSFC 566 [1A3:F]	MCR 0074 LV 03 19 S3	.500	.500	.000	.000	.136	.000	.000	.000	SREF 6.199	SC: IN
		MSFC 566 [1A3:F]	MCR 0074 LV 03 19 S3	.500	.500	.000	.000	.136	.000	.000	.000	LRFF 5.313	SC: IN
												BRFF 5.313	SC: IN
												XMRP 2.549	SC: IN
												YMRP .000	SC: IN
												ZMRP .000	SC: IN
												SCALE .004	SC: IN

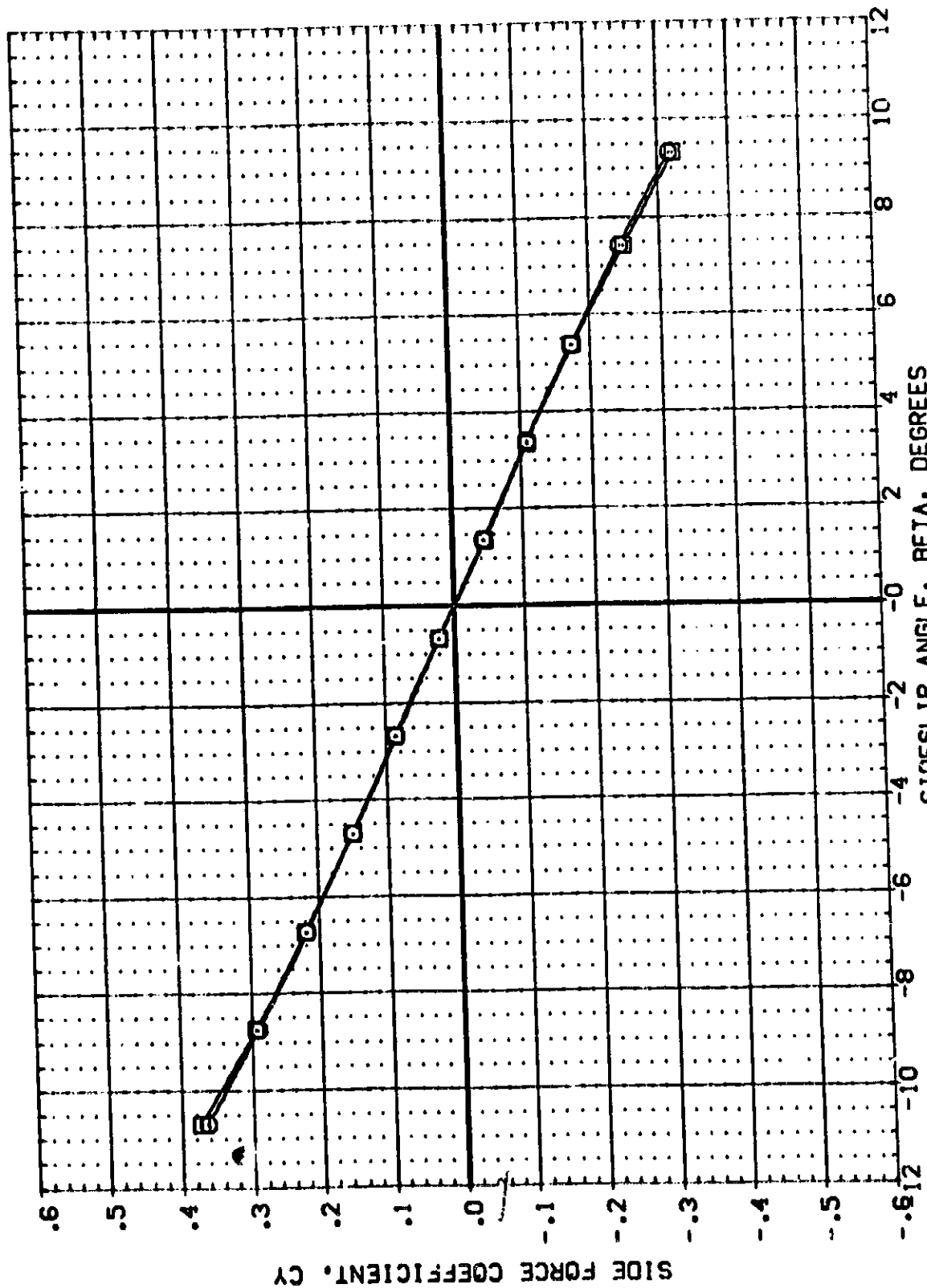


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(E)MACH = 1.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	
{ 281002 }	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	5.198
{ 081014 }	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF	5.313
						BREF	5.313
						YMRP	2.549
						ZMRP	.000
						SCALE	.001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

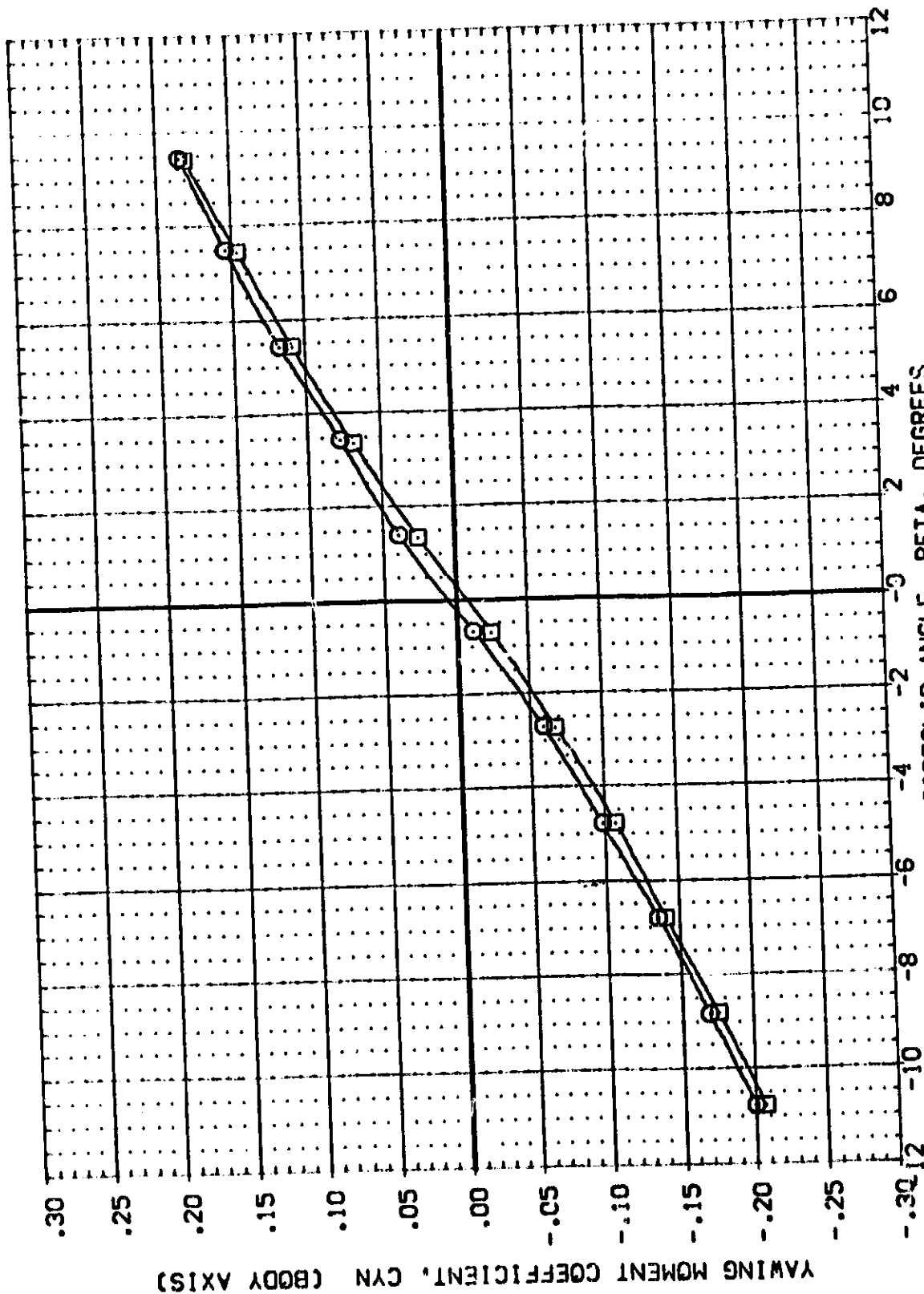
(F)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 12810021 M5C 566 (1A31F) MCR 0074 LV 03 19 53 US
 12810021 M5C 566 (1A31F) MCR 0074 LV 03 19 53 US

ORBITAL X-SRB DELTAZ RUDDER
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SREF 5.106
 LREF 5.313
 RREF 5.313
 XGRP 2.548
 YGRP 2.548
 ZGRP 2.548
 SCALE .001

SG IN
 2.222
 2.222
 2.222

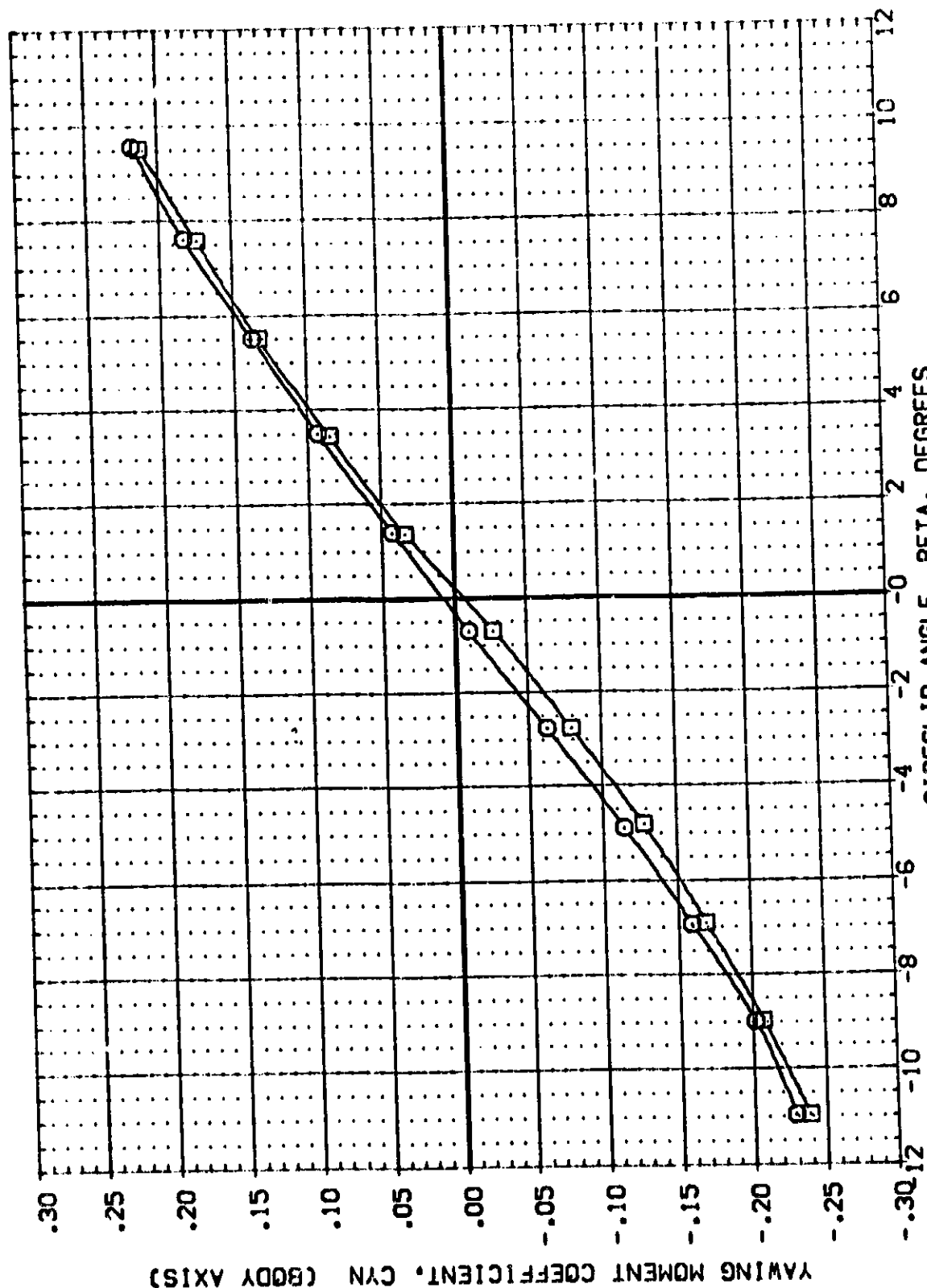


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(A)MACH = 0.60



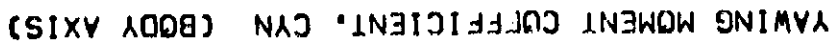
DATA SET SYMBOL		CONFIGURATION DESCRIPTION		ORBITAL		X-SRB		DELTA Z		RUDDER		REFERENCE INFORMATION	
{ 28:002 }	{ 38:014 }	MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3 US	.500	.500	.000	.000	.136	.000	SREF	6.198	50. IN	
		MSFC 566 (1A31F)	MCR 0074 LV 03 T9 S3 US	.000	.000	.000	.000	.136	.000	LREF	5.313	IN.	
										BREF	5.313	IN.	
										XMRP	2.549	IN.	
										YMRP	.000	IN.	
										ZMRP	.000	IN.	
										SCALE	.004		



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

REFERENCE INFORMATION	
SREF	5.198
LREF	5.313
BREF	5.313
XGRP	5.540
YGRP	5.000
ZGRP	5.000
SCALE	1.000



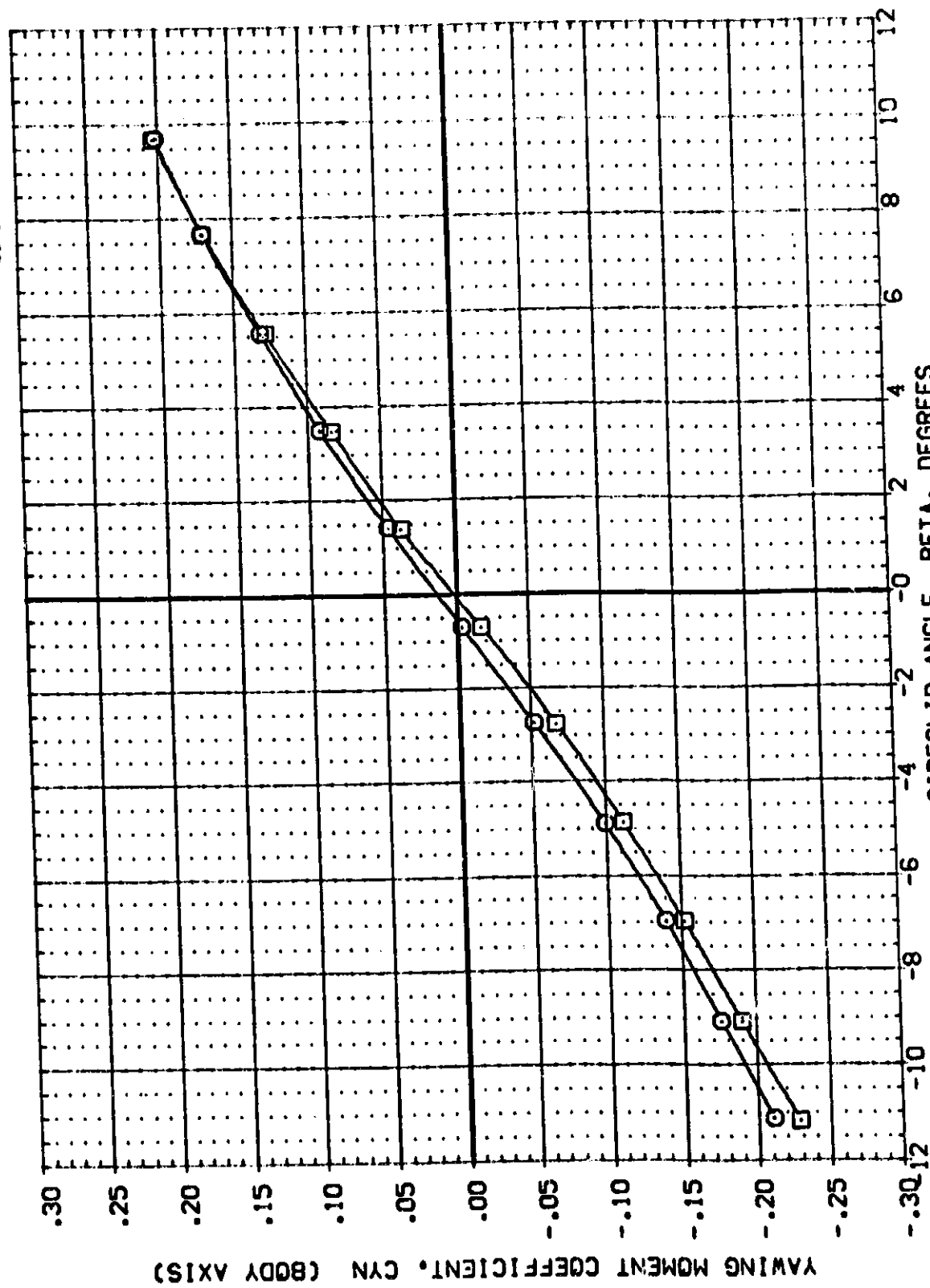
PAGE 238

COMACH = 1.05

DATA SET SYMBOL: {ZB1002} {DB1014} CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) MCR 0074 LV 33 T9 S3 US MSFC 566 (IA31F) MCR 0074 LV 63 T9 S3 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTA Z	RUDDER	SREF	UREF	YMRP	ZMRP	SCALE	SO	IN	IN	IN	IN
.500	.000	.136	.000	6.198	5.313	2.549	.000	.004	IN	IN	IN	IN	IN
.500	.000	.136	.000	5.313	5.313	2.549	.000	.004	IN	IN	IN	IN	IN



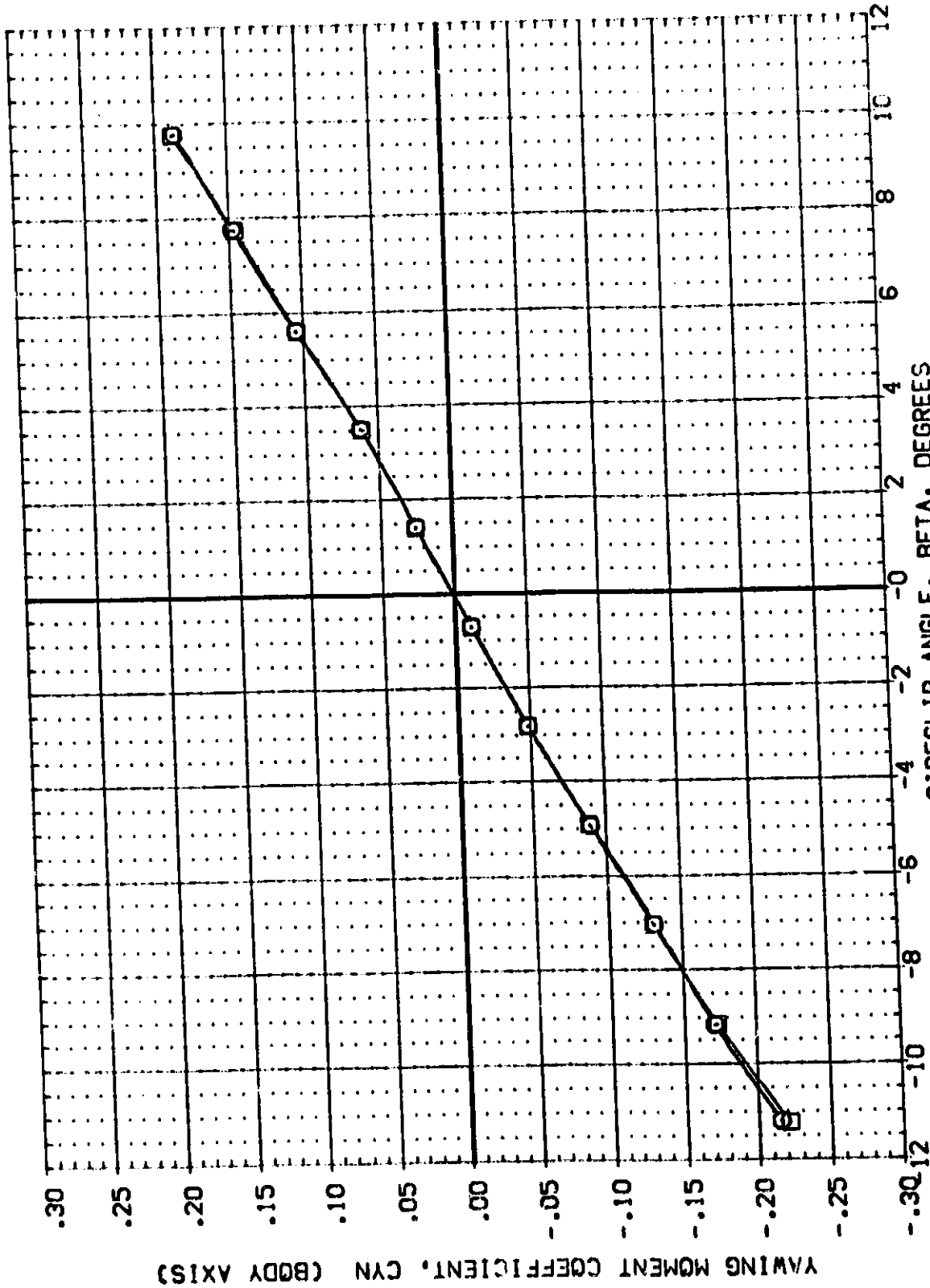
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.25

DATA SET SYMBOL: (281002) (281014) CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 53 MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ. IN

ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SQ. IN
500	.000	.136	.000	SREF	6.199
.500	.000	.136	.000	LREF	5.313
				BREF	5.313
				XMRP	2.549
				YMRP	.000
				ZMRP	.000
				SCALE	.004

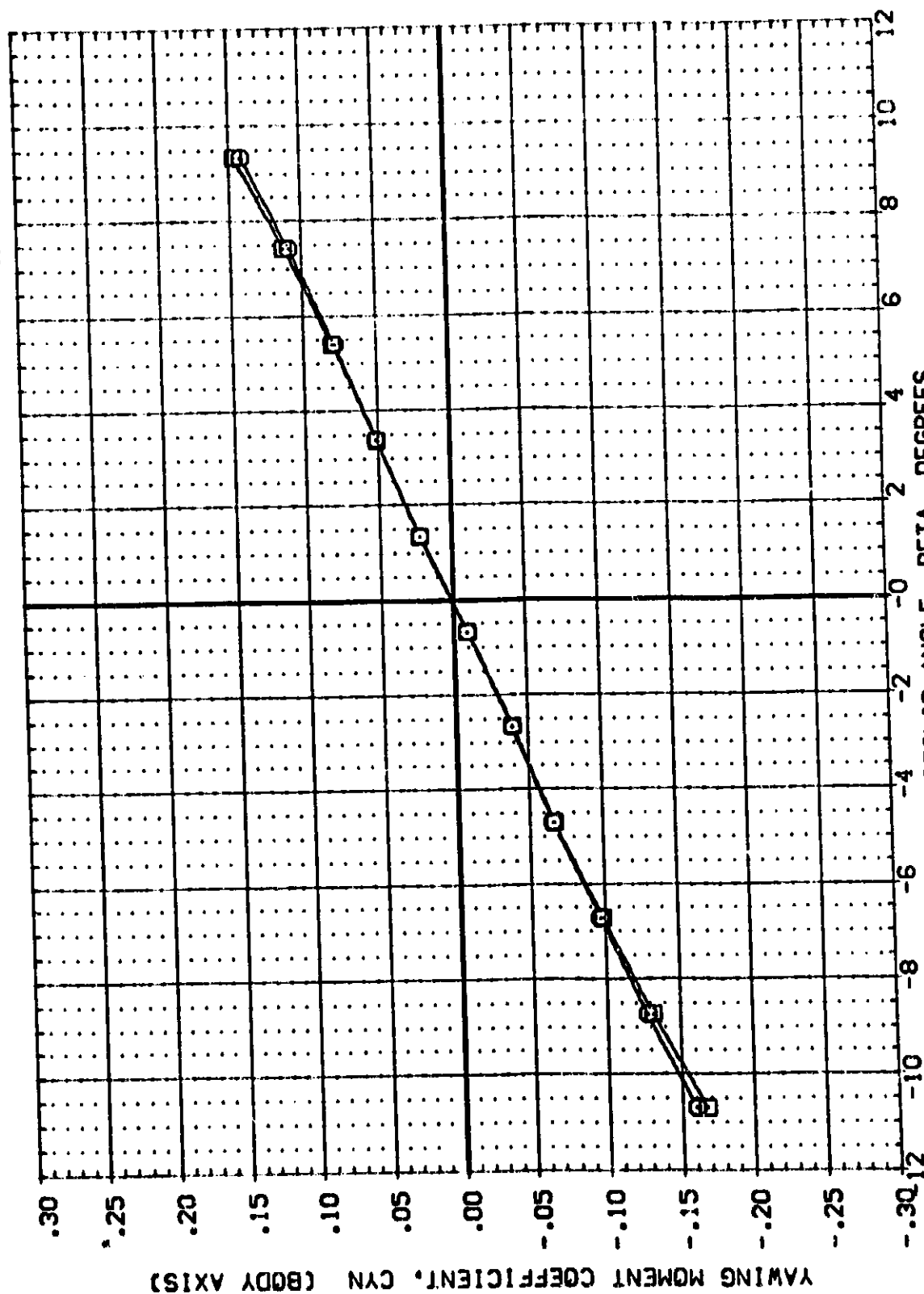


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(E)MACH = 1.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(281002)	MSC 566 (1A31F) NCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(281014)	MSC 566 (1A31F) MCF 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF 5.313
						BREF 5.313
						VMRP 2.549
						ZMRP .000
						SCALE .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

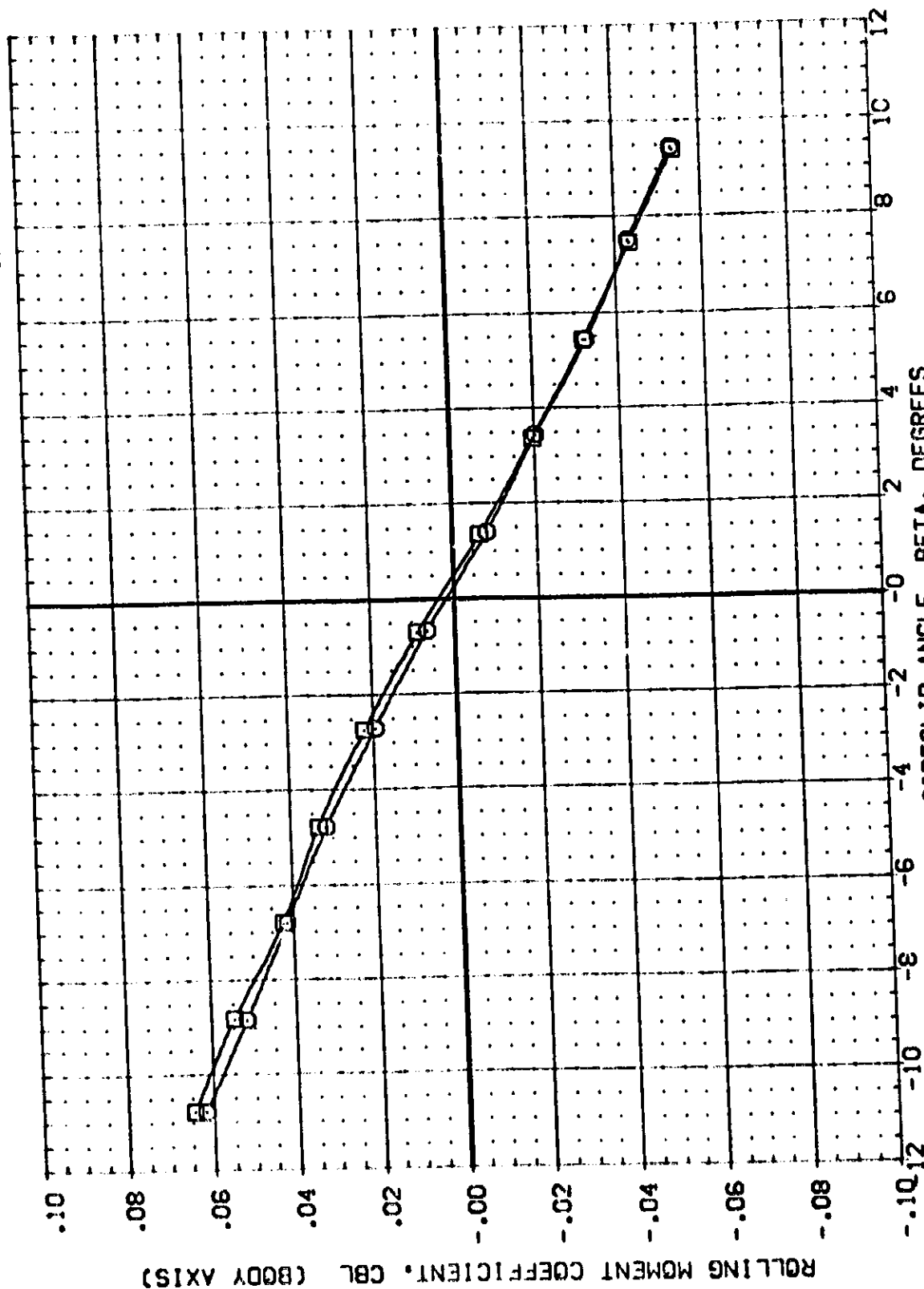
(F)MACH = 4.96

DATA SET SYMBOL: (ZB:002) (ZB:014)

CONFIGURATION DESCRIPTION: MSFC 566 [1A31F] MCR 0074 LV 03 TS S3 U5
 MSFC 566 [1A31F] MCR 0074 LV 03 TS S3 U5

ORBITAL X-958 DELTA Z RUDDER REFERENCE INFORMATION

ORBITAL X-958	DELTA Z	RUDDER	REFERENCE INFORMATION
.500	.136	.000	SREF 5.196
.500	.136	.000	LREF 5.313
			BREF 5.313
			X-958 2.549
			Y-958 .000
			Z-958 .000
			SCALE .001

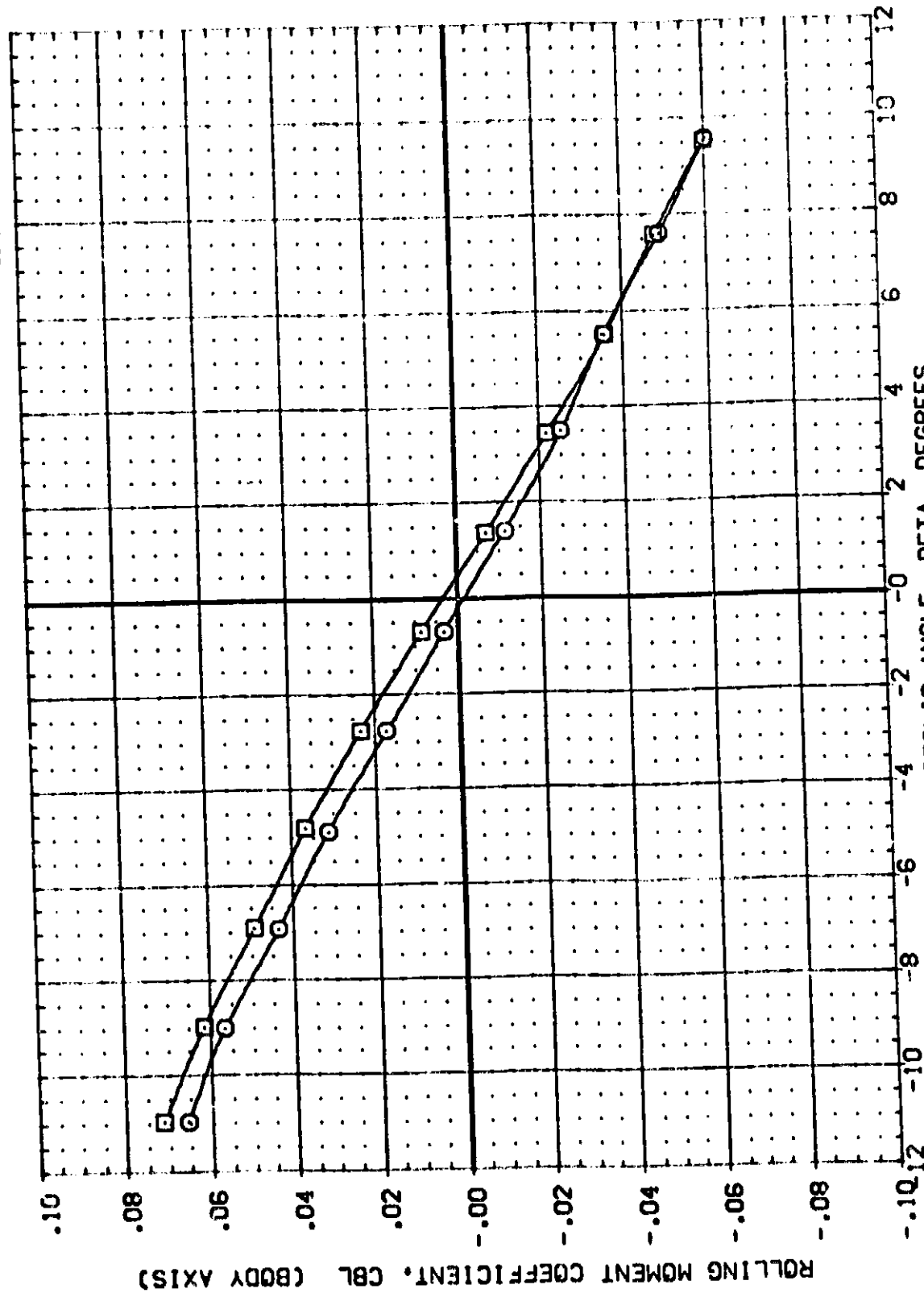


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(MACH = 0.60)



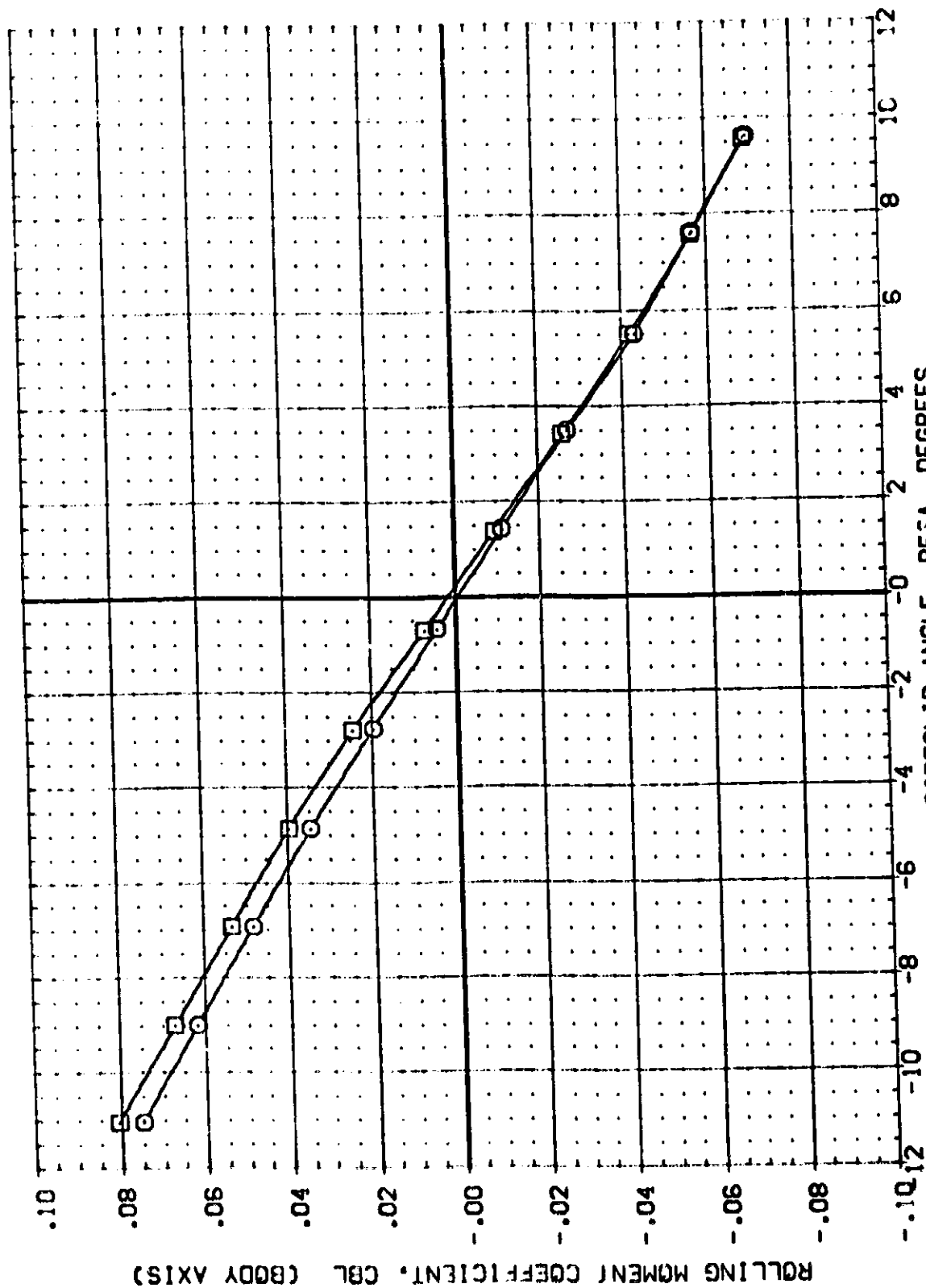
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DRBINC	X-SKS	DELTA Z	RJODER	REFERENCE INFORMATION	
(281002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF	6.198
(581014)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	LREF	5.313
						BREF	5.313
						XMRP	2.548
						YMRP	.000
						ZMRP	.000
						SCALE	.004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(B)MACH = 0.90

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
1970	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099

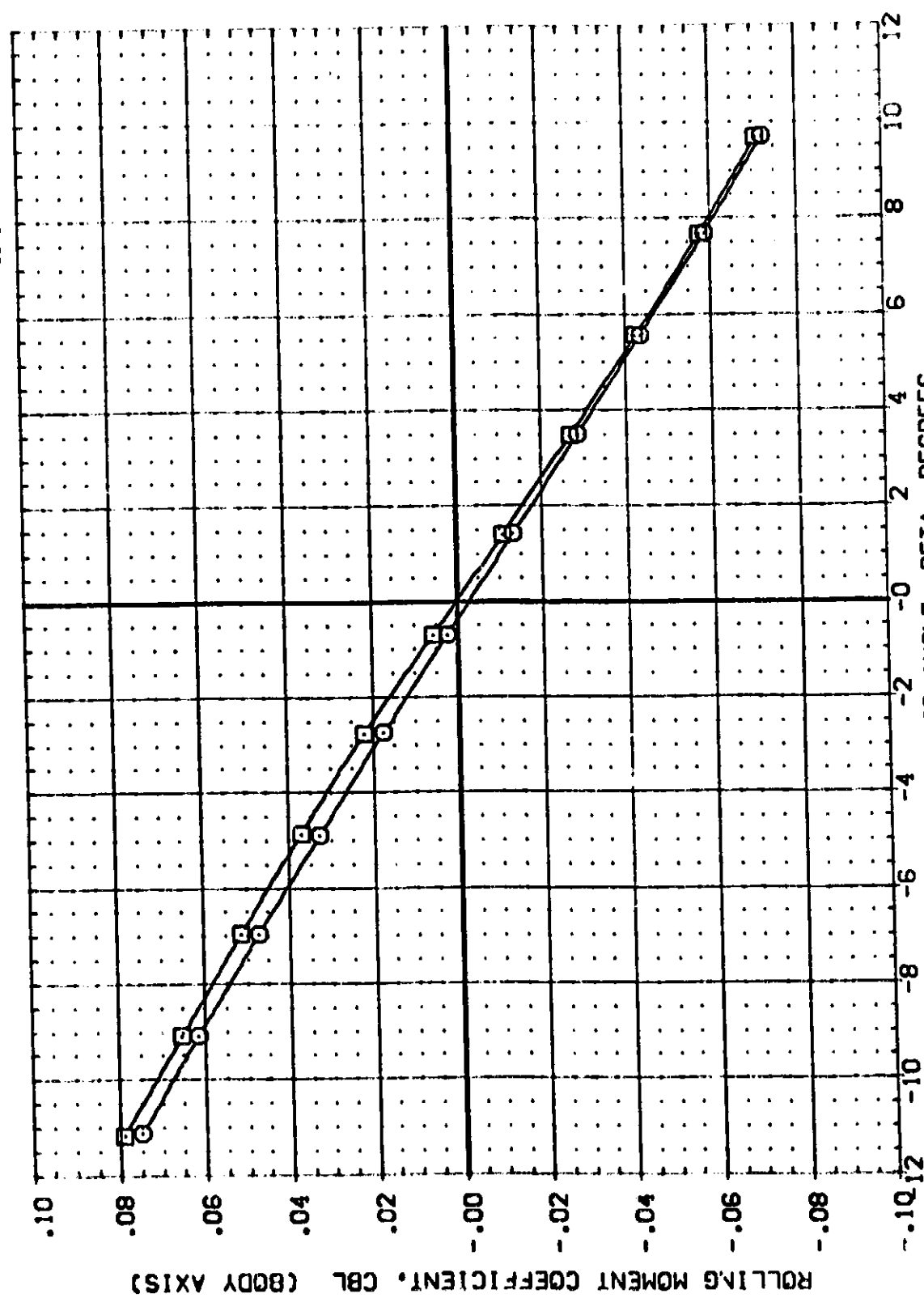


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

$$\text{COMACH} = 1.05$$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDER	REFERENCE INFORMATION	SC. IN
(281002)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198	2.2
(581014)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3 US	.500	.000	.136	.000	LREF 5.313	2.2
						PREF 5.313	2.2
						XMRP 2.546	2.2
						YMRP .000	2.2
						ZMRP .000	2.2
						SCALE .001	2.2



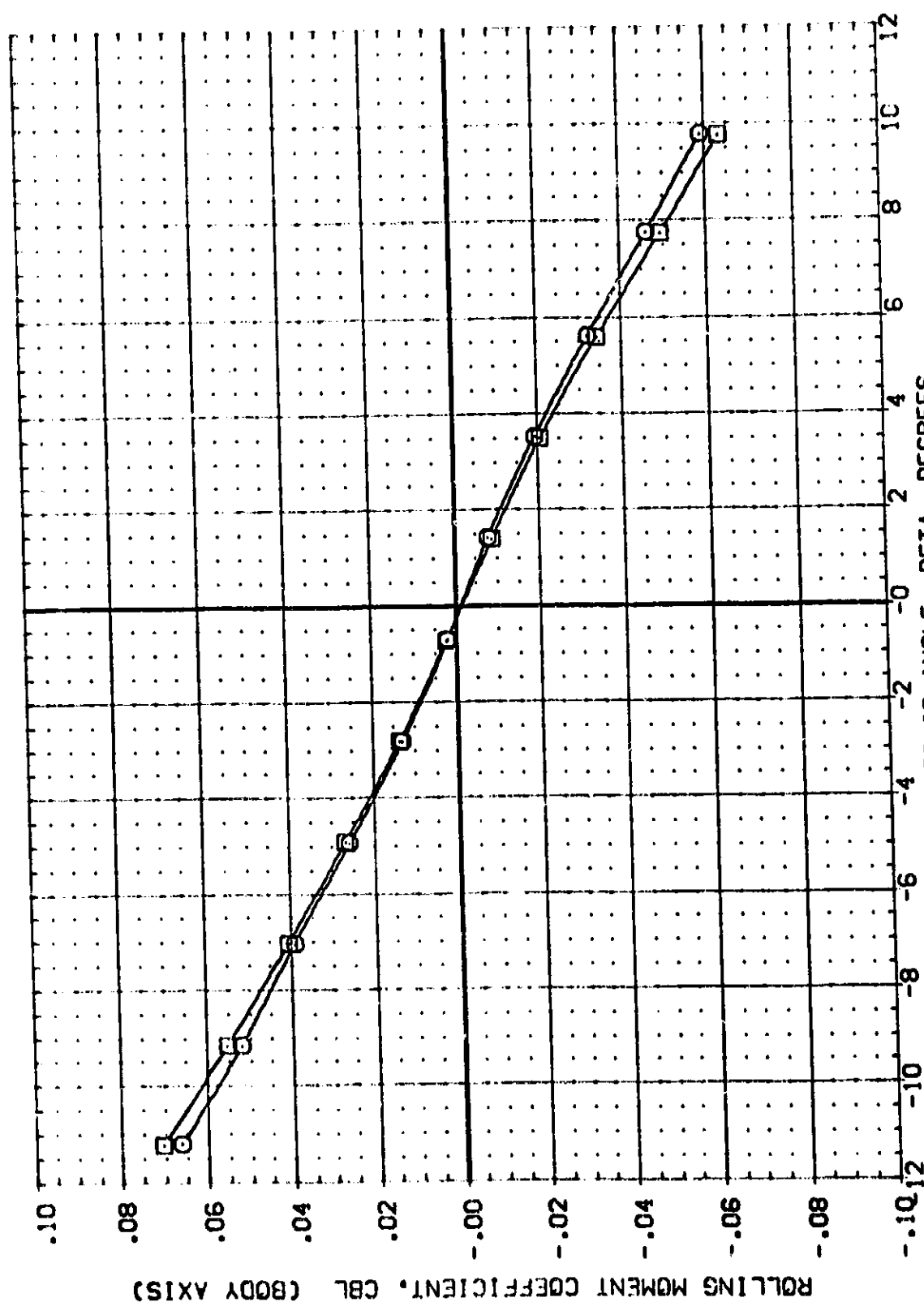
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(M)MACH = 1.25

DATA SET SYMBOL: [28102] [28104] CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US MSFC 566 (1A31F) MCR 0074 LV 03 19 53 US

ORBITAL X-SUB DELTA Z RUDDER REFERENCE INFORMATION

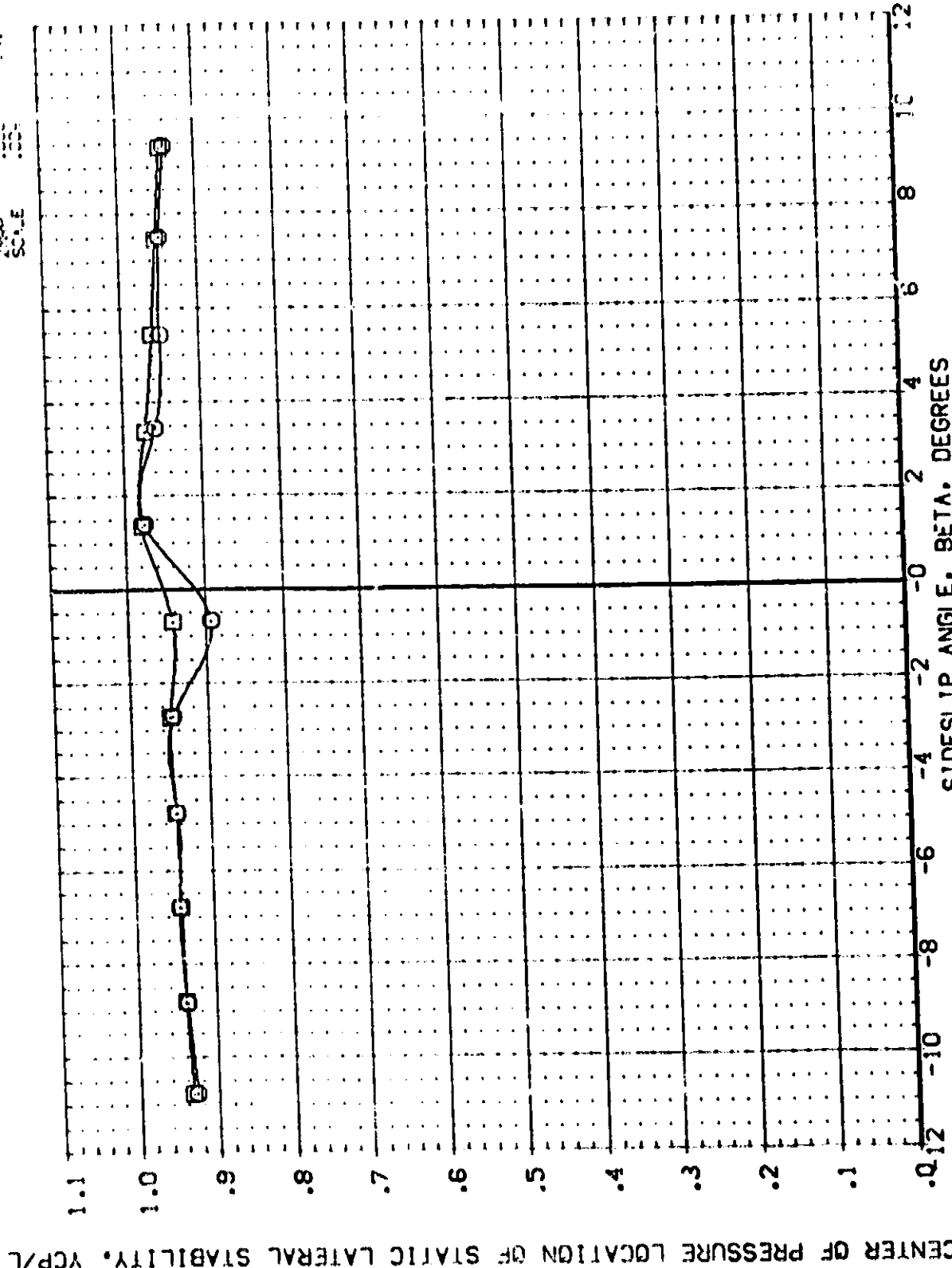
ORBITAL	X-SUB	DELTA Z	RUDDER	REFERENCE INFORMATION
.500	.000	.136	.000	SREF 6.198
.500	.000	.136	.000	LRREF 5.313
				BRREF 5.313
				XREF 2.549
				YREF .000
				ZREF .000
				SCALE .001



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(M)MACH = 1.96

DATA SET SYMBOL: [281002] [281014]
 CONFIGURATION DESCRIPTION: WSC 556 (A31E) WCR 0074 LV 03 79 S3 US
 WSC 556 (A31E) WCR 0074 LV 03 79 S3 US
 ORIGIN: X-599 DELTA Z: .000 .000 .000
 RUDER: .000 .000 .000
 REFERENCE INFORMATION: SREF: 8.108
 SCALING: .000 .000 .000
 SCALE: .000 .000 .000



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

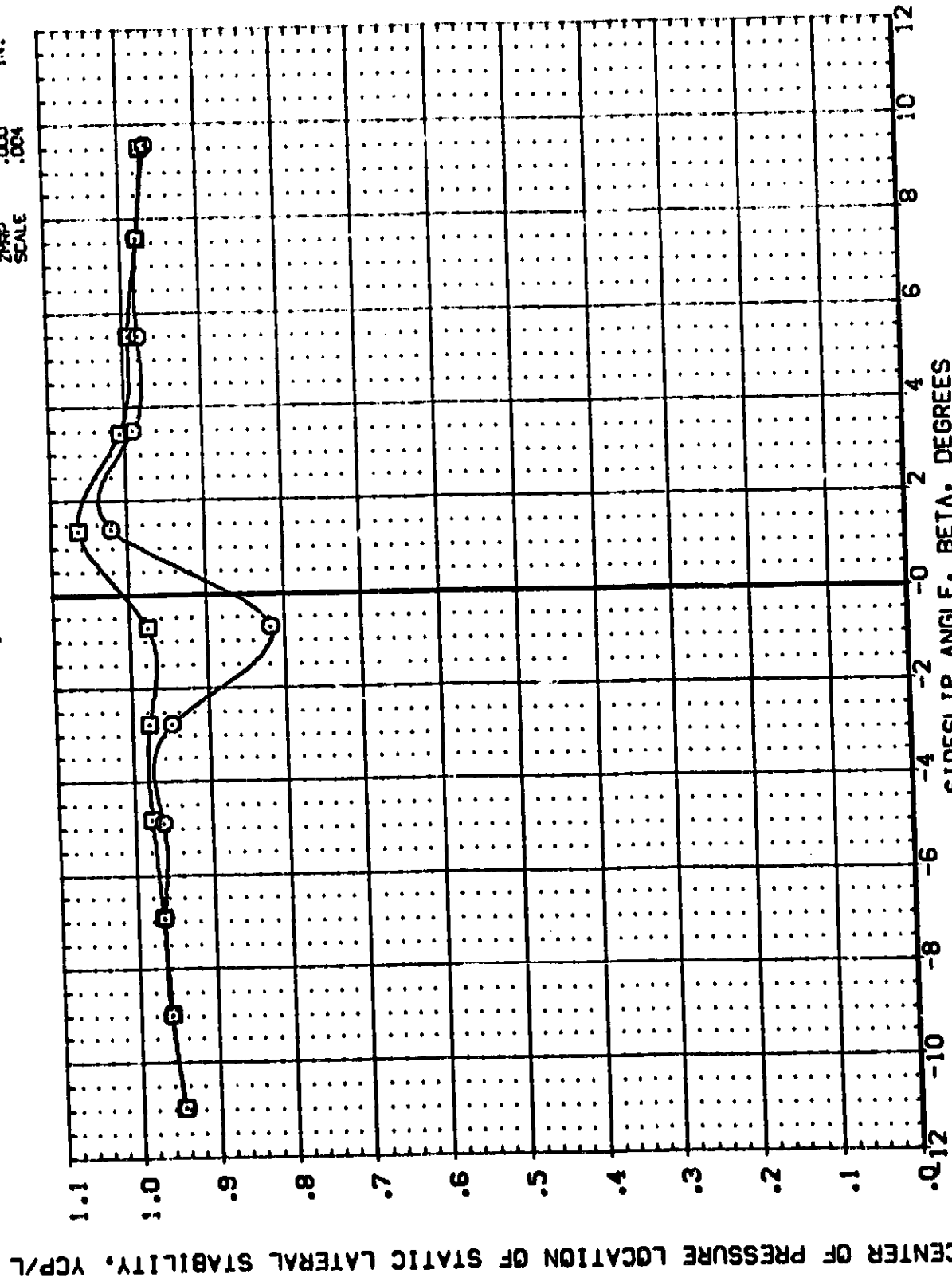
(A)MACH = 0.60

DATA SET SYMBOL: (281002) (DB1014)

CONFIGURATION DESCRIPTION: MSFC 565 (1A31F) MCR 0074 LV 03 T9 S3 US
 MSFC 565 (1A31F) MCR 0074 LV 03 T9 S3 US

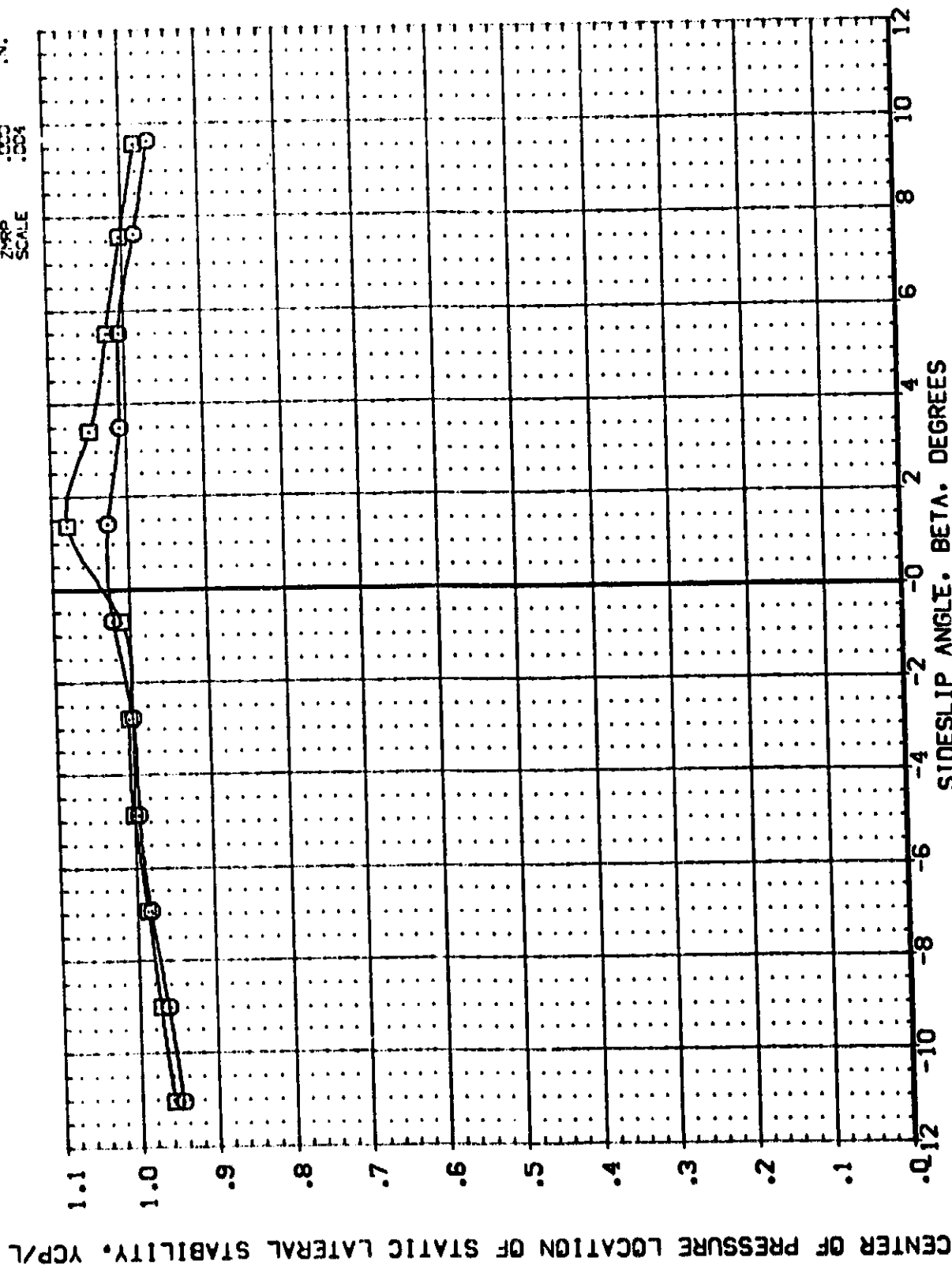
ORBITAL X-SRB DELTAZ RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTAZ	RUDDER	REF	IN
.500	.000	.136	.000	SREF	6.198
.500	.000	.136	.000	LREF	5.313
				BREF	5.313
				XREF	2.549
				YREF	.000
				ZREF	.000
				SCALE	.004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

DATA SET SYMBOL: 1281002
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 US
 ORBINC: .500
 X-SRB: .000
 DELTA Z: .136
 RUDDER: .000
 REFERENCE INFORMATION: SREF: 6.198, LREF: 5.313, SREF: 5.313, XMRP: 2.548, YMRP: .000, ZMRP: .000, SCALE: .004



EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL. CONFIGURATION DESCRIPTION

(Z81002) MSC 566 (IA31F) MOR 0074 LV 03 T9 S3 U5

(081014) MSC 566 (IA31F) MOR 0074 LV 03 T9 S3 U5

ORBITAL X-SRB DELTA Z RUDDER REFERENCE INFORMATION

.500 .000 .000 SREF 6.198 SO. IN.

.500 .000 .000 LREF 5.313 IN.

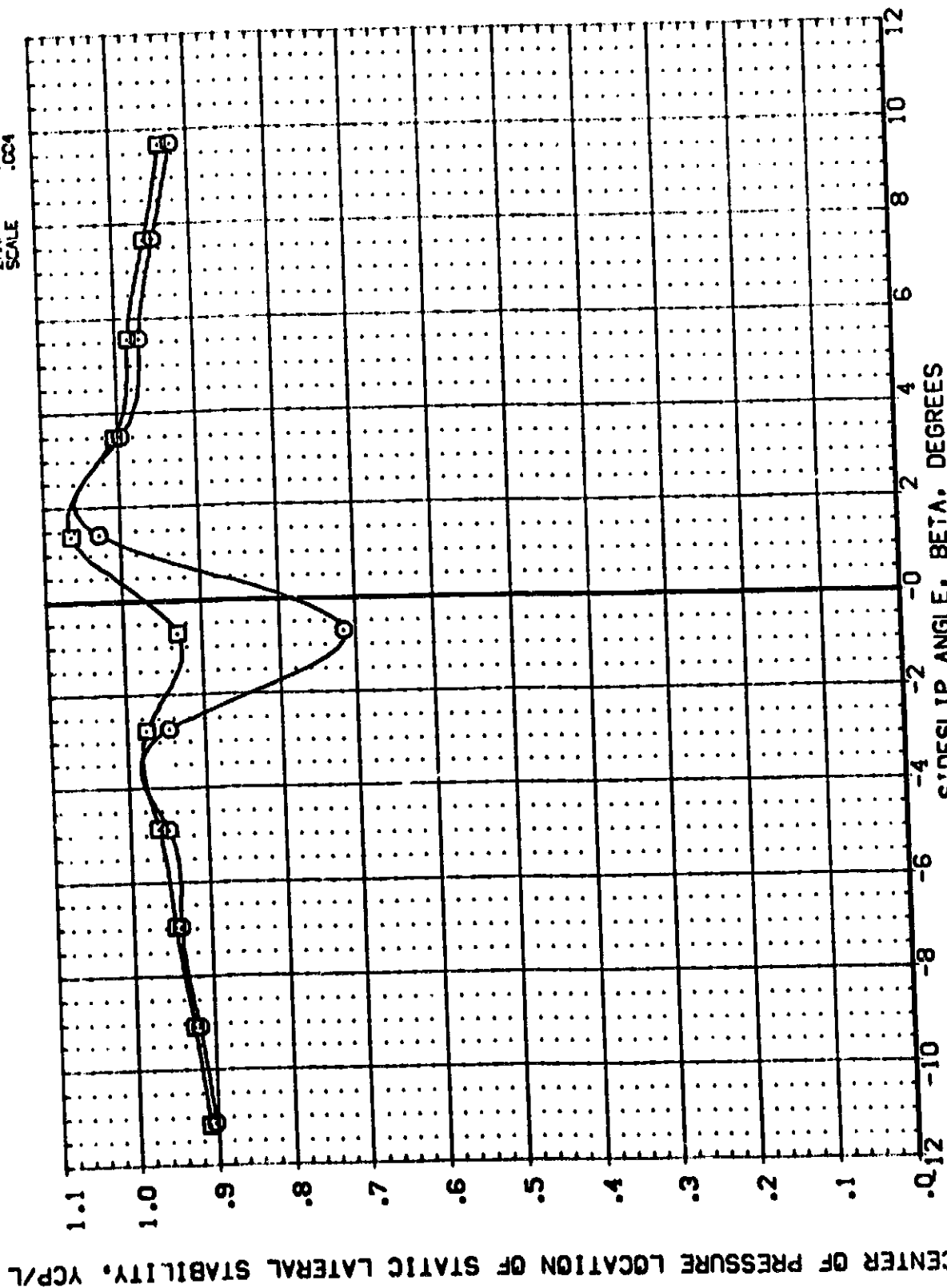
.000 .000 .000 BREF 5.313 IN.

.000 .000 .000 XMRP 2.549 IN.

.000 .000 .000 YMRP .000 IN.

.000 .000 .000 ZMRP .000 IN.

SCALE .004

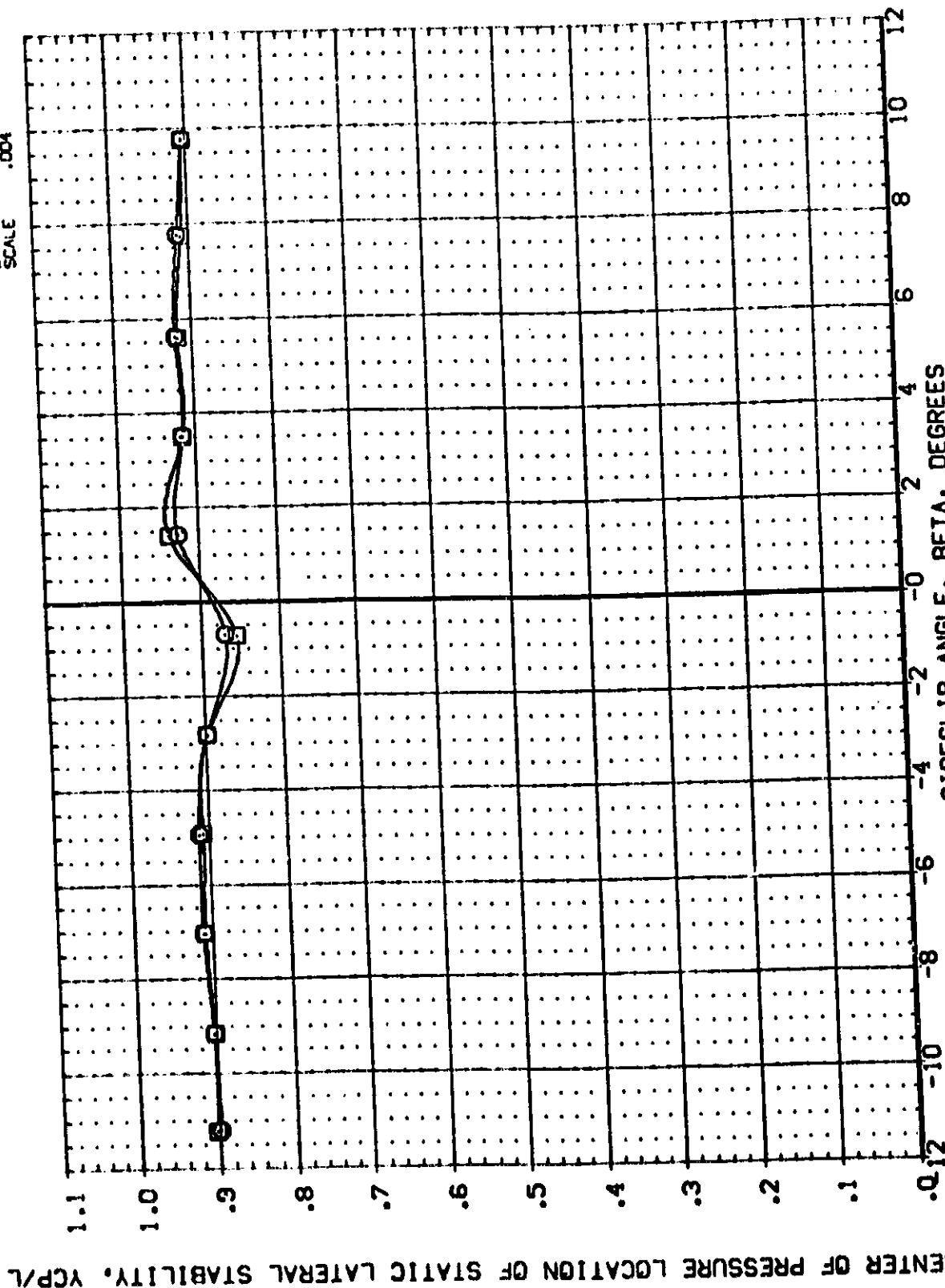


EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(D)MACH = 1.25

DATA SET SYMBOL: []
 CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 US
 MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3 US

ORBIT: X-508
 DELTA Z: .000
 RUDDER: .000
 REFERENCE INFORMATION: SQ: IN
 SREF: 6.198
 LREF: 5.313
 BREF: 5.313
 XMRP: 2.549
 YMRP: .000
 ZMRP: .000
 SCALE: .001



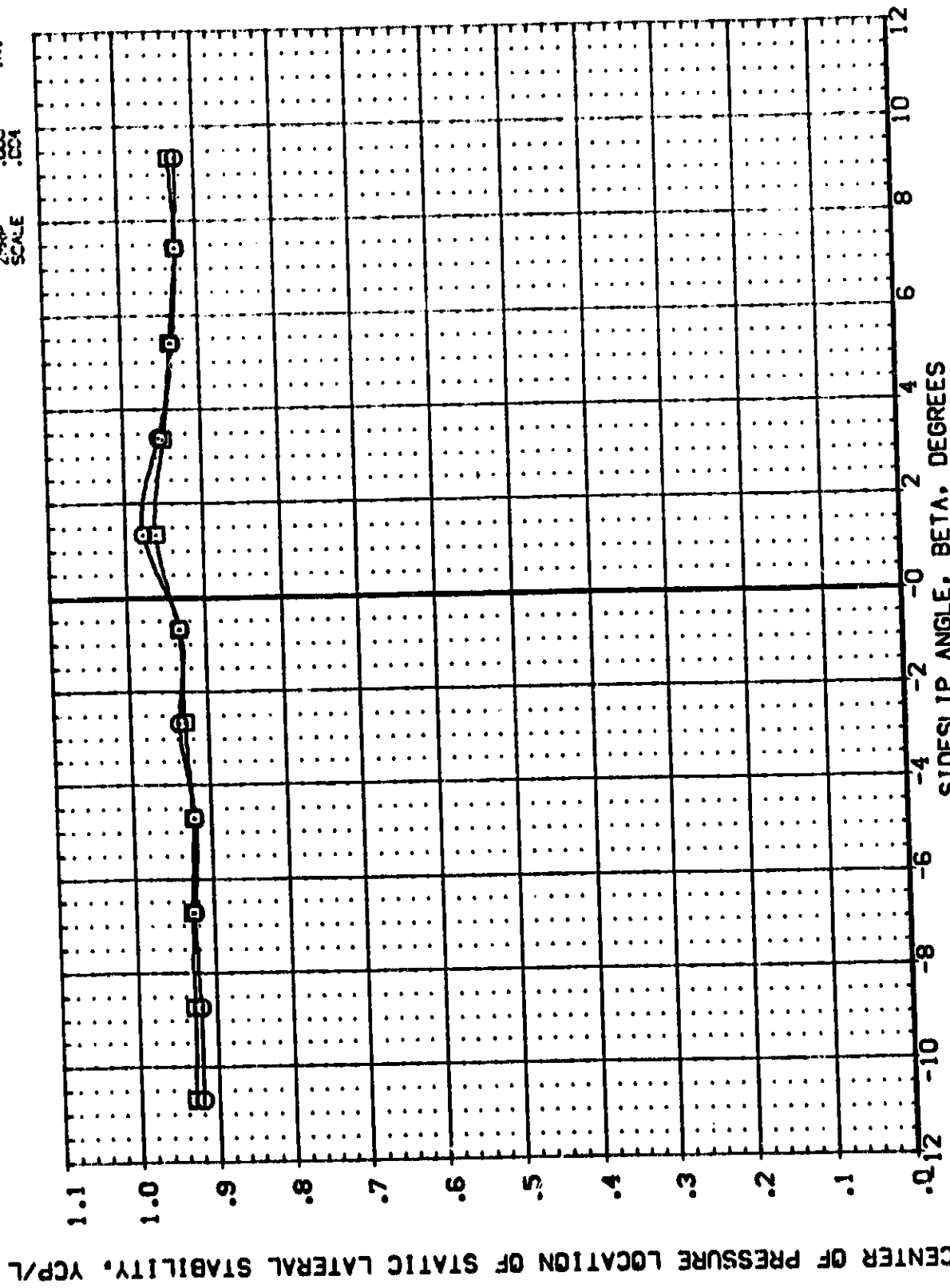
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(E)MACH = 1.96



DATA SET SYMBOL: (281002) (091014)
CONFIGURATION DESCRIPTION: HSC 566 (1A31F) MOR 0074 LV 03 T9 S3 US
HSC 566 (1A31F) MOR 0074 LV 03 T9 S3 US

ORBITAL X-598 DELTA Z RUDDER REFERENCE INFORMATION
SREF 5.198 SQ. IN
LREF 5.313 IN
BREF 5.313 IN
XMRP 2.549 IN
YMRP .000 IN
ZMRP .000 IN
SCALE .004



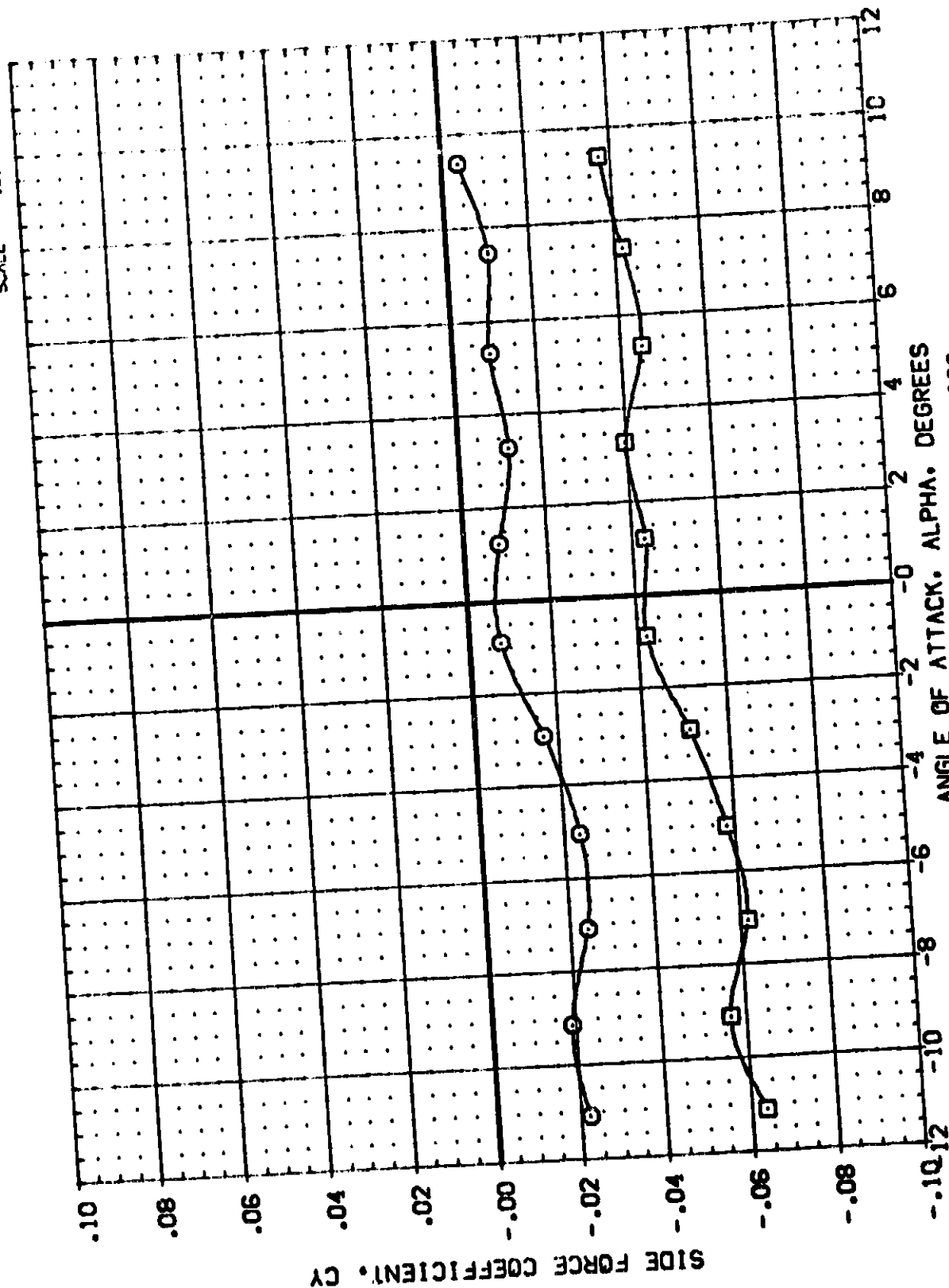
EFFECT OF AFT INTERSTAGE STRUCTURE ON STABILITY CHARACTERISTICS

(F)MACH = 4.96

ORBITING X-SRB DELTA Z RUDDER
 .500 .000 .136 .000
 .500 .000 .136 -10.000

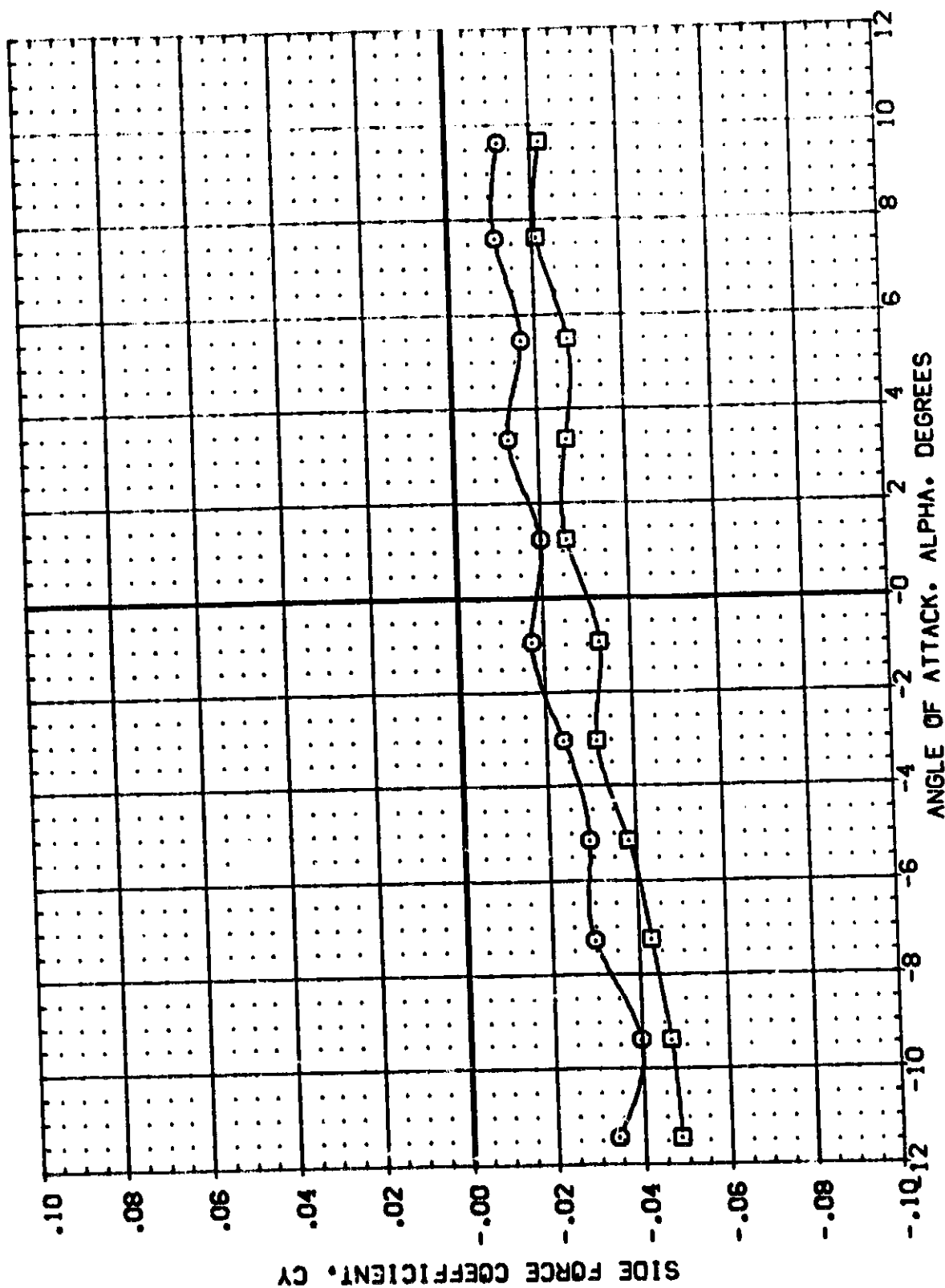
REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081001) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (081011) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

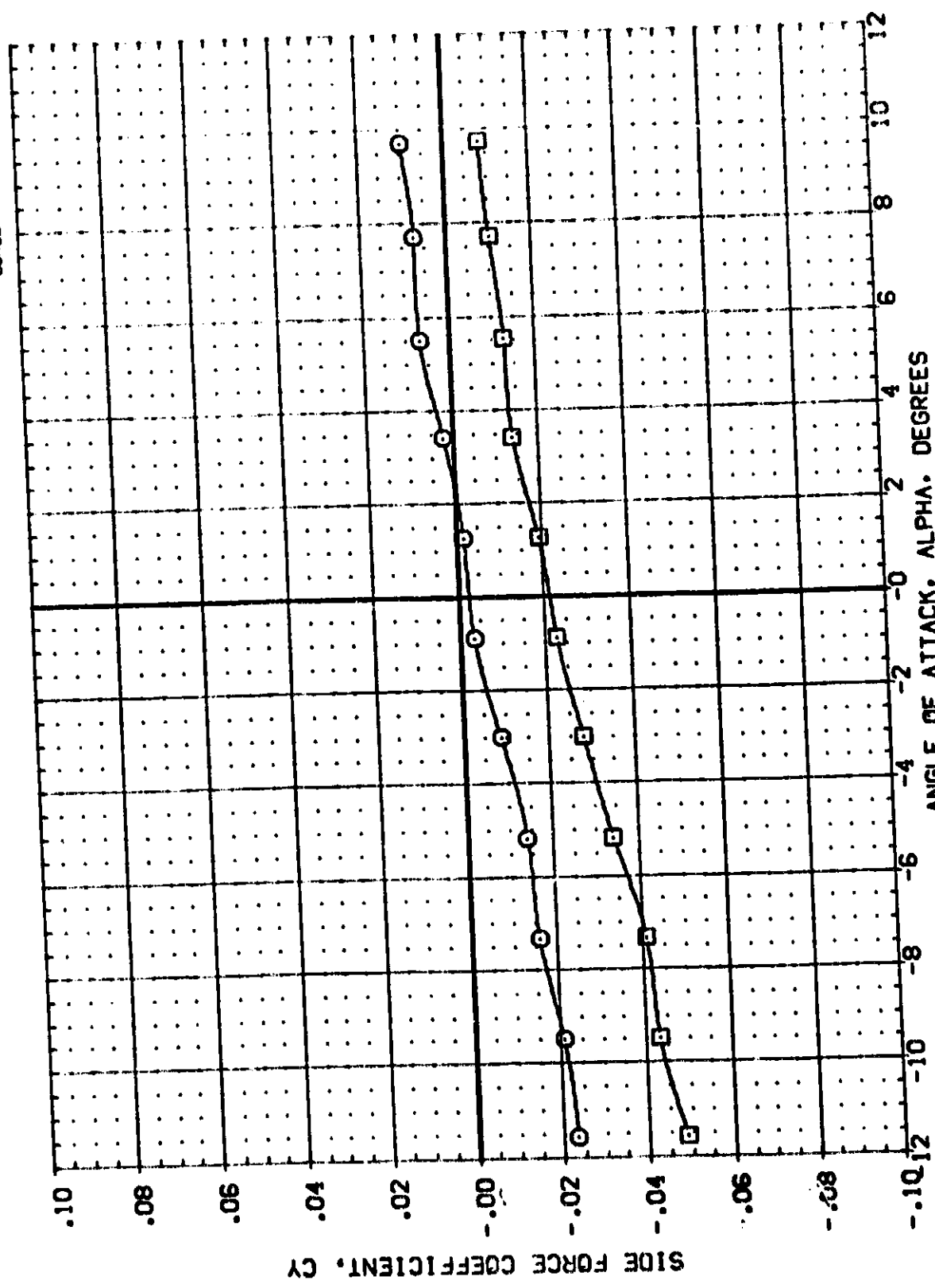
[illegible]

EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

$$[B]_{\text{ACH}} = 0.91$$

DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (081011) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

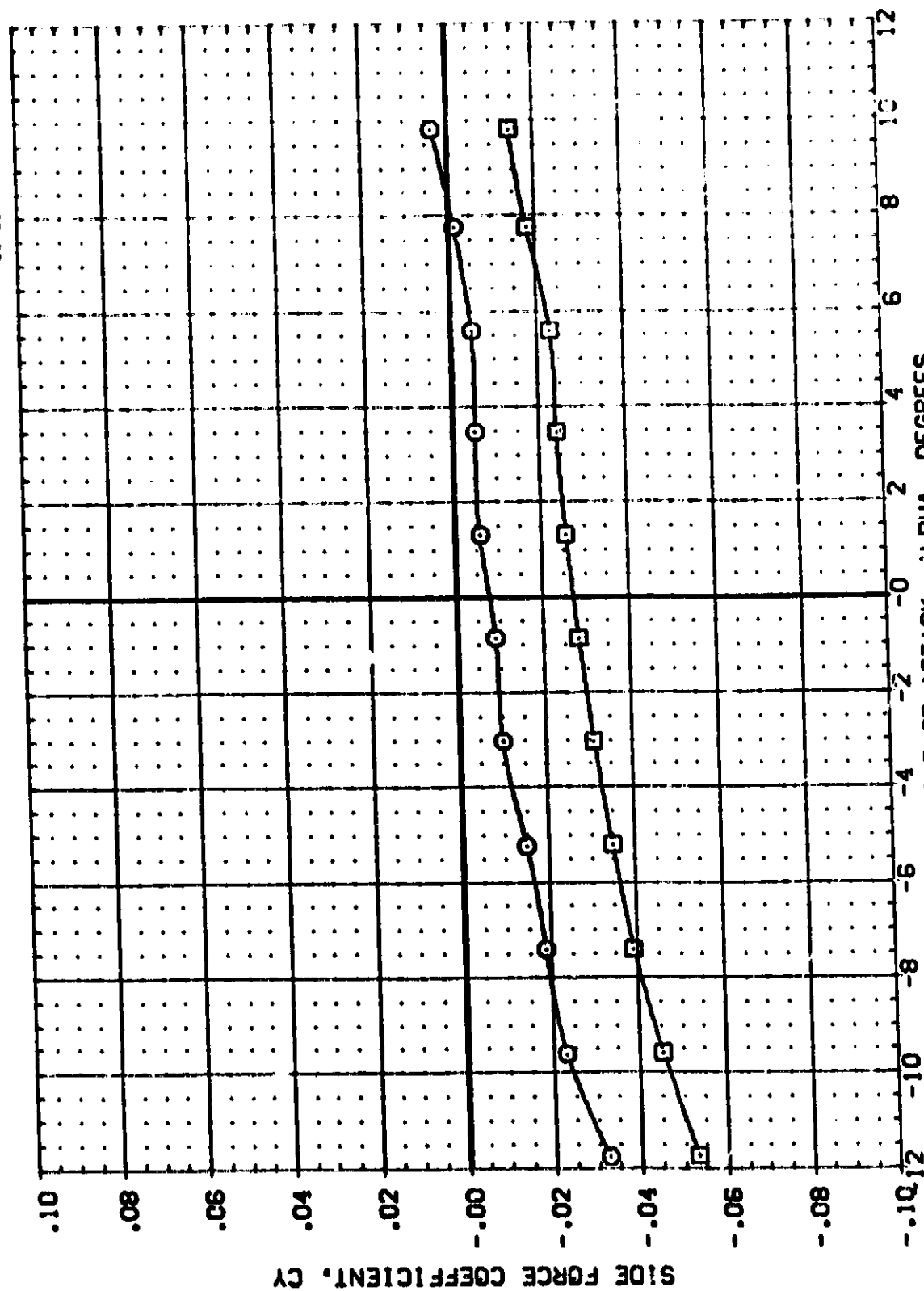
ORIGIN X-SRB DELTAZ RUDDER REFERENCE INFORMATION
 .500 .000 .000 SREF 6.199 SO. IN
 .500 .000 .000 LREF 5.313
 .000 .000 .000 BREF 5.313
 .000 .000 .000 XPRP 2.546
 .000 .000 .000 YPRP .000
 .000 .000 .000 ZPRP .000
 .000 .000 .000 SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL: (081001) (081011) CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3 ORIGIN: X-SRB: .500 .500 DELTA Z: .136 .136 RUDDER: .000 .000 -10.000 REFERENCE INFORMATION: SREF: 6.198 LREF: 5.313 SREF: 5.313 XPRP: 2.546 YPRP: .300 ZPRP: .000 SCALE: .001



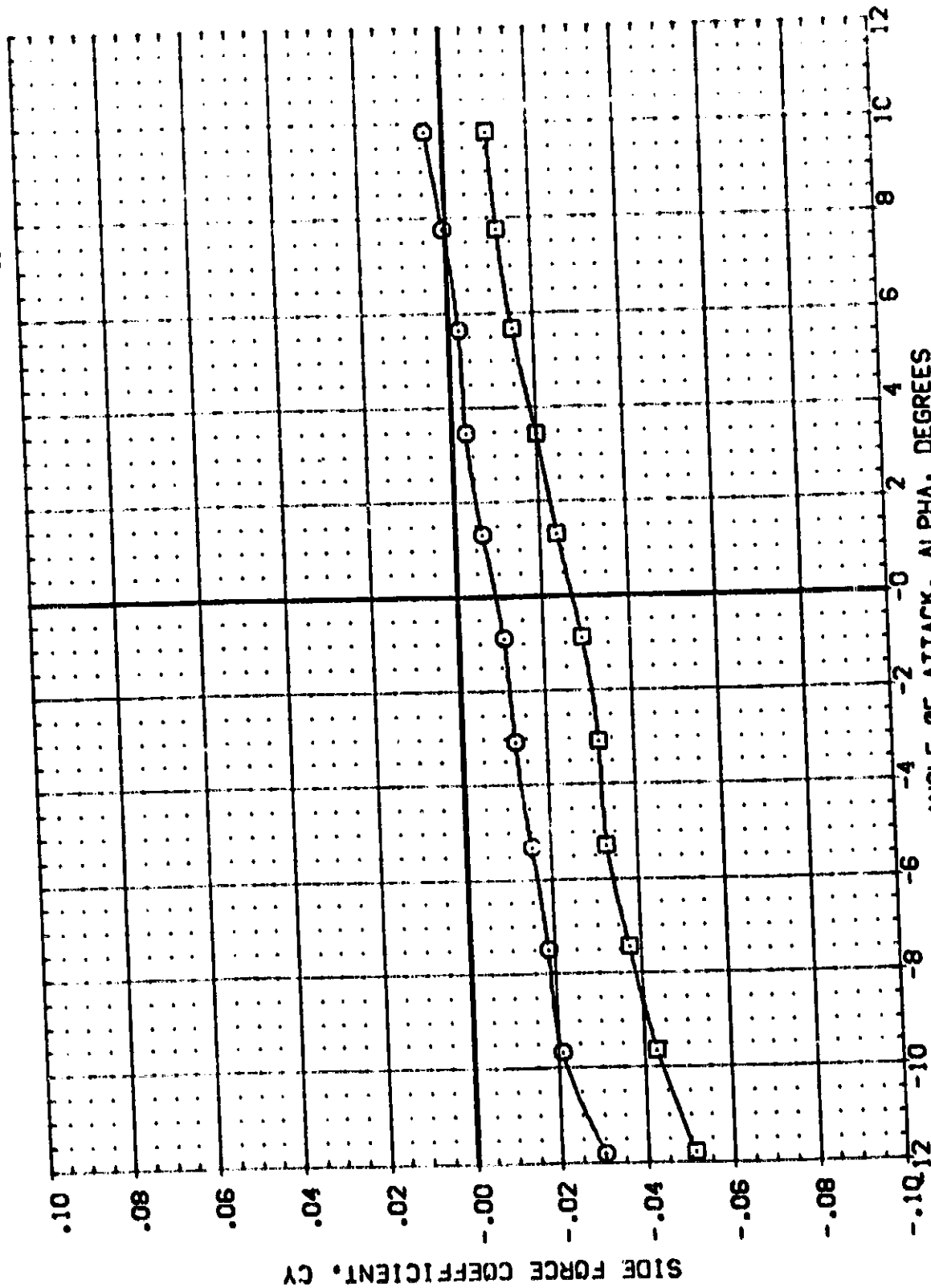
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(0)MACH = 1.25

DATA SET SYMBOL: (081001)
(081011)
CONFIGURATION DESCRIPTION: M57C 566 (1A31F) MCR 0074 LV 03 T9 S3
M57C 566 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN: X-SRB: .500
DELTA Z: .136
RUDDER: .000
-10.000

REFERENCE INFORMATION:
SREF: 6.198
LREF: 5.313
BREF: 5.313
YREF: 2.549
XREF: 1.000
SCALE: 1.000



ANGLE OF ATTACK, ALPHA, DEGREES

EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

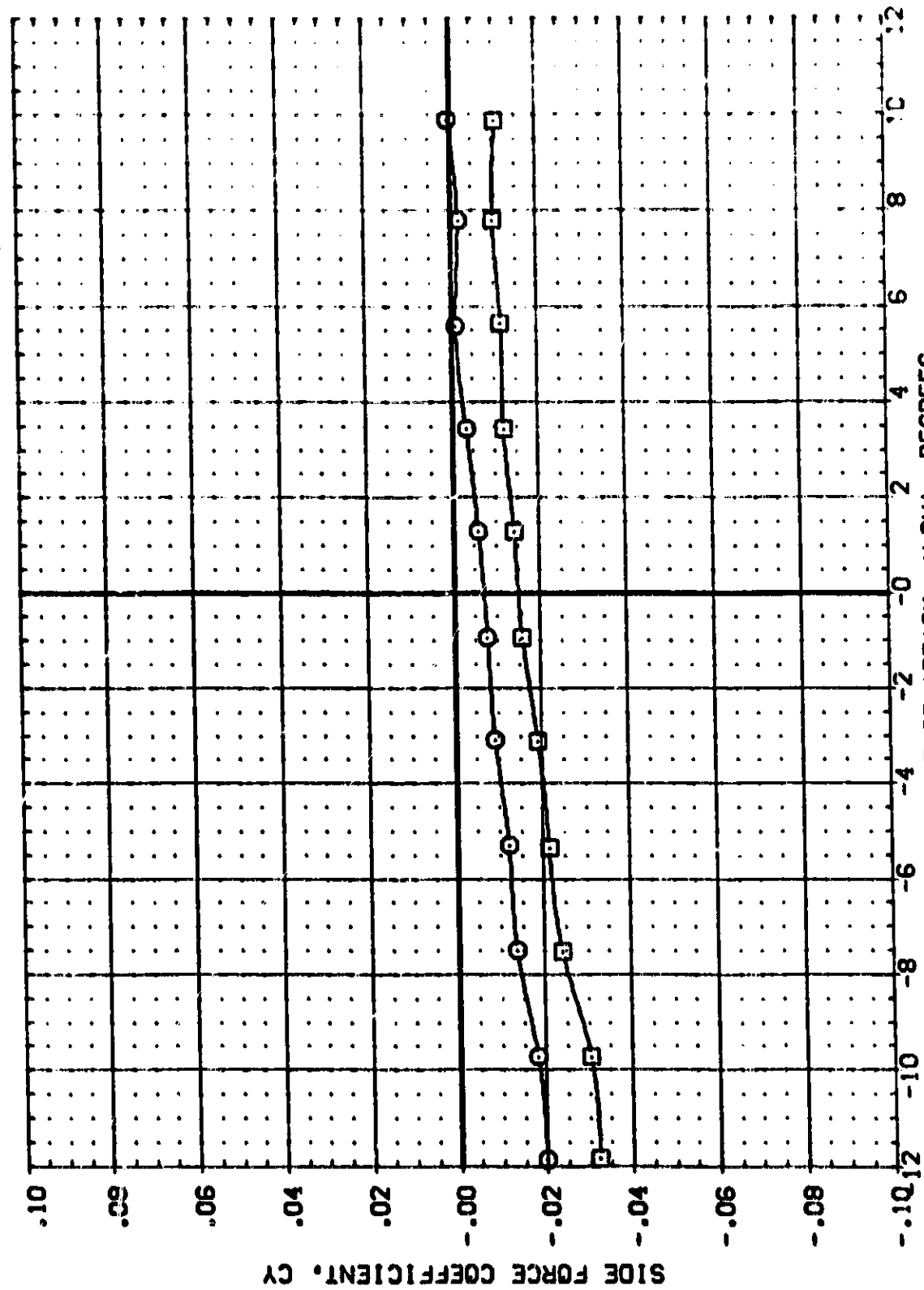
(E)MACH = 1.45



DATA SET SYMBOL CONFIGURATION DESCRIPTION
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 (DB1011) □ MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN X-500 DELTA Z RUDDER
 .500 .000 .000
 .500 .000 -10.000

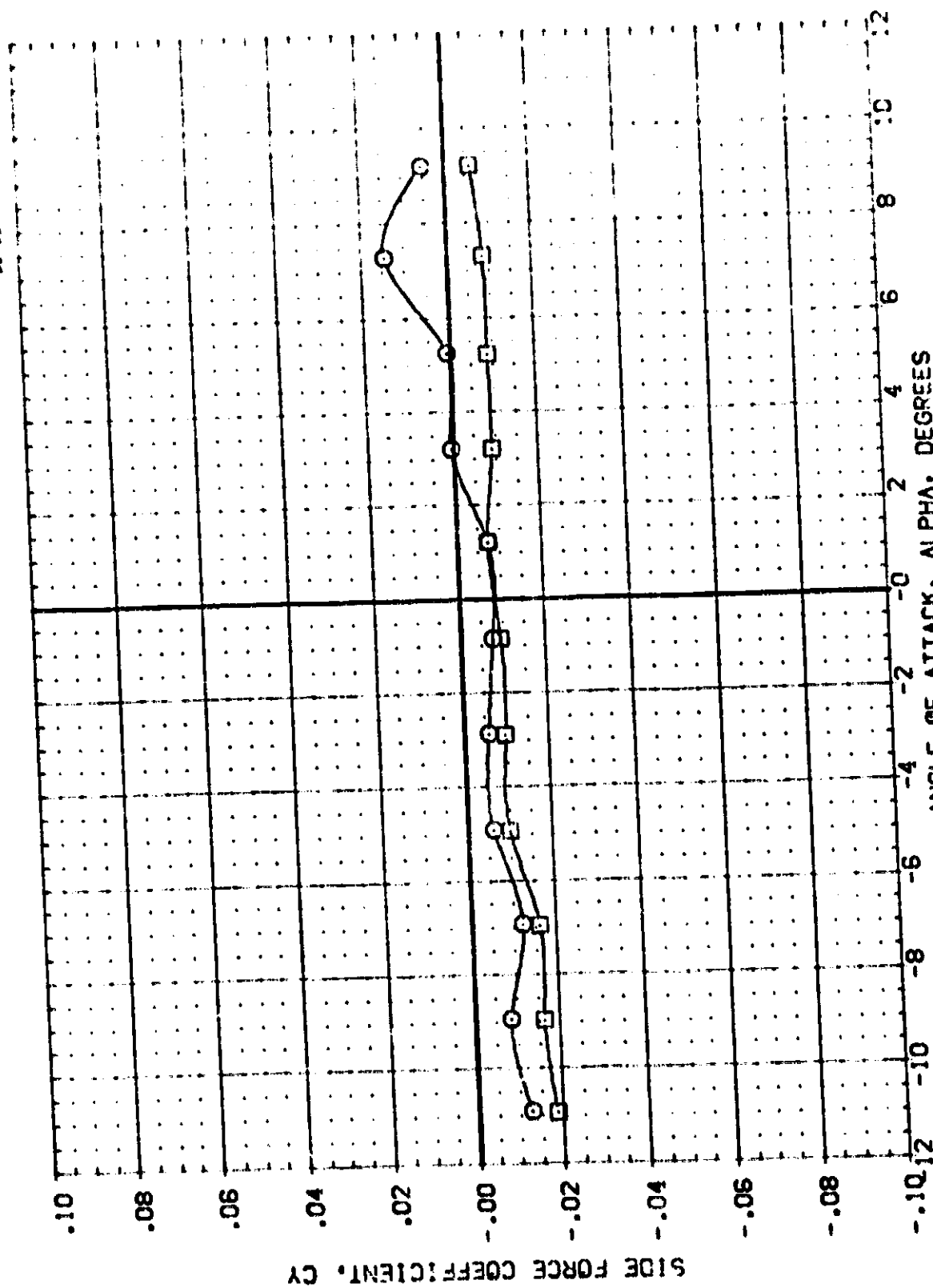
REFERENCE INFORMATION
 SPREF 6.198 SD: 1N
 LREF 5.313
 BRPF 5.313
 XTRP 2.549
 YTRP .000
 ZTRP .000
 SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS
 (F)MACH = 1.96

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	03	19	53
[08:00:]	MFC 566	[A31F] MCR 0074	LV	03	19
[08:01:]	MFC 566	[A31F] MCR 0074	LV	03	19

NAME	ROOM	DATE	TIME	STATUS
ALFRED, J.	101	10/10/55	10:00	OK
BROWN, J.	102	10/10/55	10:05	OK
CLARK, J.	103	10/10/55	10:10	OK
DAVIS, J.	104	10/10/55	10:15	OK
EVANS, J.	105	10/10/55	10:20	OK
FRANK, J.	106	10/10/55	10:25	OK
GREEN, J.	107	10/10/55	10:30	OK
HILL, J.	108	10/10/55	10:35	OK
JONES, J.	109	10/10/55	10:40	OK
KELLY, J.	110	10/10/55	10:45	OK
LEWIS, J.	111	10/10/55	10:50	OK
MARTIN, J.	112	10/10/55	10:55	OK
MURPHY, J.	113	10/10/55	11:00	OK
NEAL, J.	114	10/10/55	11:05	OK
OLSON, J.	115	10/10/55	11:10	OK
PETERSON, J.	116	10/10/55	11:15	OK
ROBERTS, J.	117	10/10/55	11:20	OK
SCOTT, J.	118	10/10/55	11:25	OK
SMITH, J.	119	10/10/55	11:30	OK
STEWART, J.	120	10/10/55	11:35	OK
TAYLOR, J.	121	10/10/55	11:40	OK
THOMAS, J.	122	10/10/55	11:45	OK
WALKER, J.	123	10/10/55	11:50	OK
WILLIAMS, J.	124	10/10/55	11:55	OK
WYATT, J.	125	10/10/55	12:00	OK



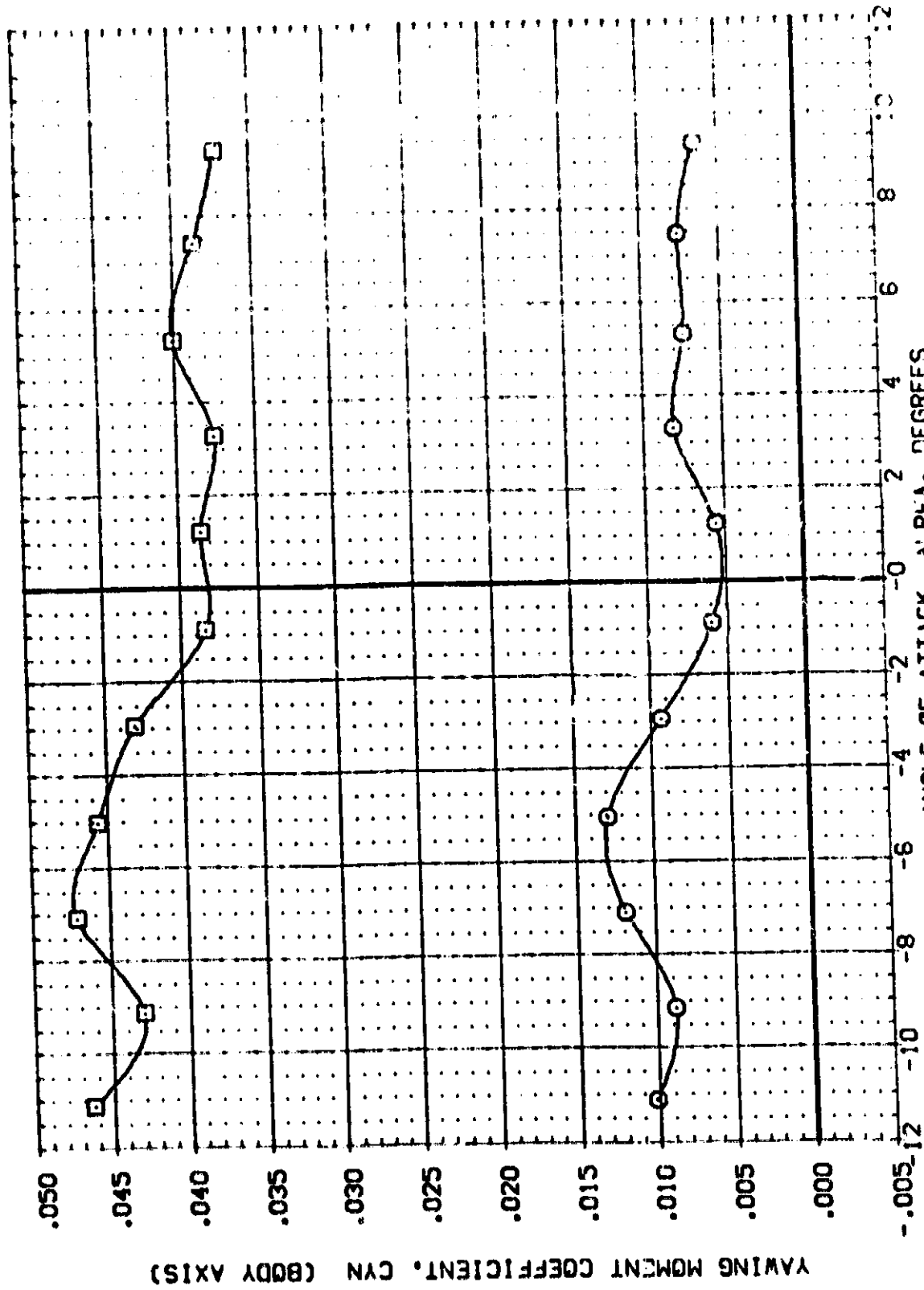
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL: [081001] [081011] CONFIGURATION DESCRIPTION: MSC 566 (1A31F) FOR 0074 LV 03 TS 53 MSC 566 (1A31F) FOR 0074 LV 03 TS 53

ORBITING X-598 DELTA Z RUDDER SPEED REFERENCE INFORMATION

ORBITING	X-598	DELTA Z	RUDDER	SPEED	REFERENCE INFORMATION
.500	.000	.136	.000	6.198	50.000
.500	.000	.136	-10.000	5.313	50.000
				5.313	50.000
				5.313	50.000
				5.313	50.000
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				5.313	50.000
				5.313	50.000



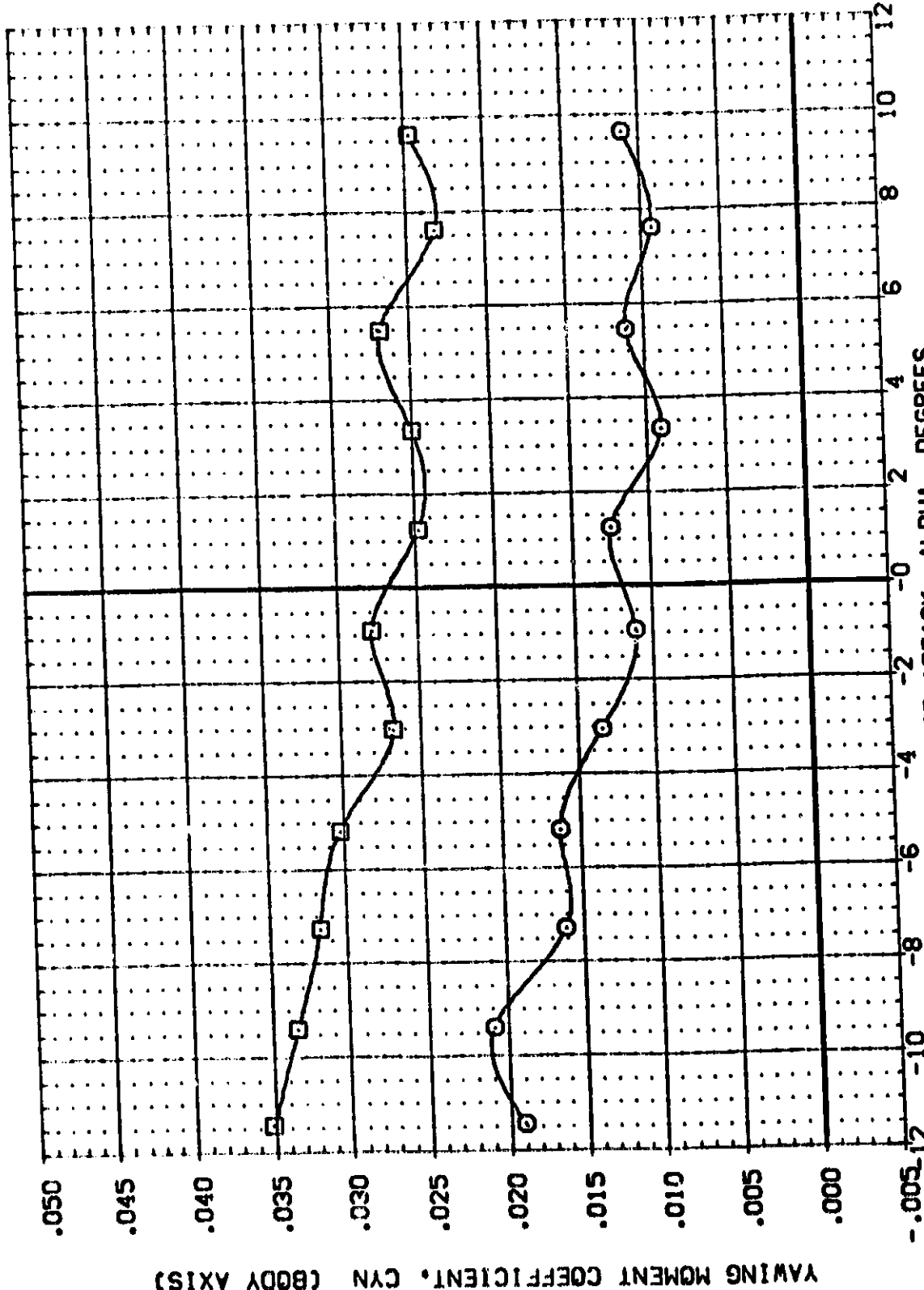
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

DATA SET SYMBOL: (DB1001)
 CONFIGURATION DESCRIPTION: MSFC 556 (IA31F) MCR 0074 LV 03 TS S3
 MSFC 556 (IA31F) MCR 0074 LV 03 TS S3

ORBITAL X-508 DELTA Z RUDDER
 .500 .000 .000
 .500 .000 -10.000

REFERENCE INFORMATION
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 LREF 2.313
 BREF 2.313
 XREF 2.548
 YREF 0.000
 ZREF 0.000
 SCALE .004

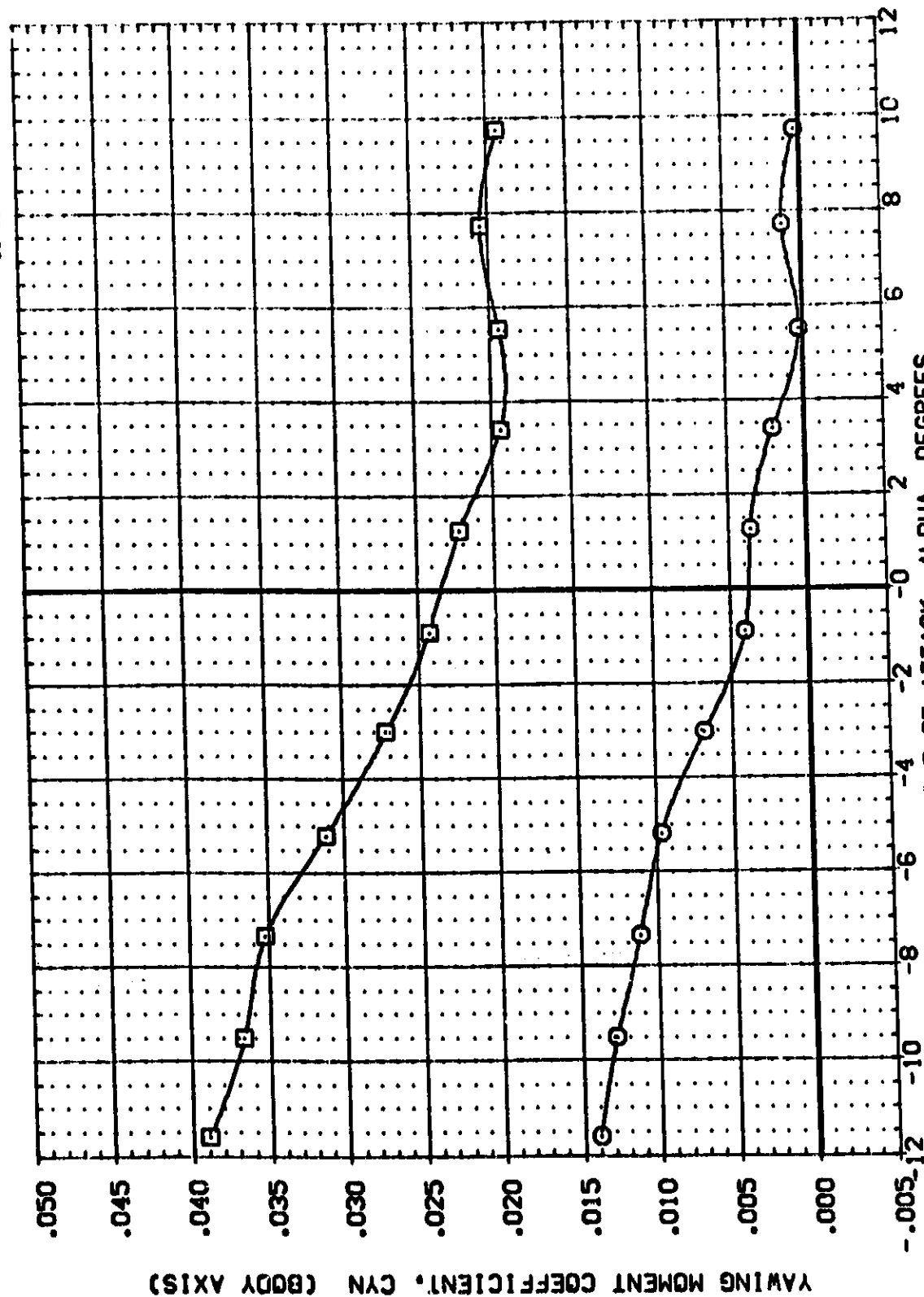


EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(B)MACH = 0.91



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 565 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198
(081011)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-10.000	LREF 5.313
						BREF 5.313
						XMRP 2.545
						YMRP .000
						ZMRP .000
						SCALE .001



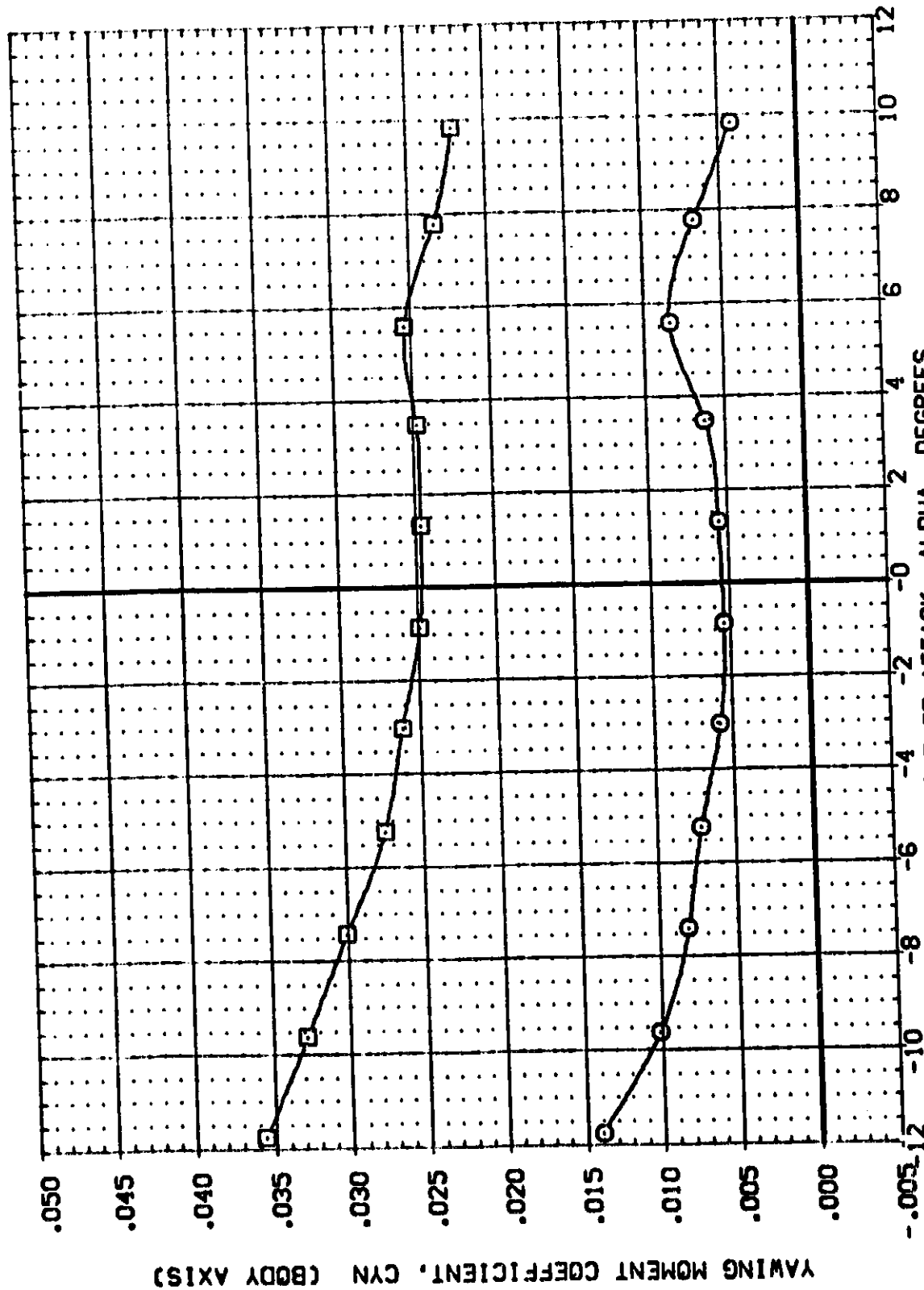
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL: (DB1001)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN: X-SRB: .500
 DELTA Z: .136
 RUDDER: .000
 SCALE: .001

REFERENCE INFORMATION:
 SREF: 6.196
 LREF: 5.313
 BREF: 5.313
 XREF: 2.546
 YREF: .000
 ZREF: .000
 SCALE: .001



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.25

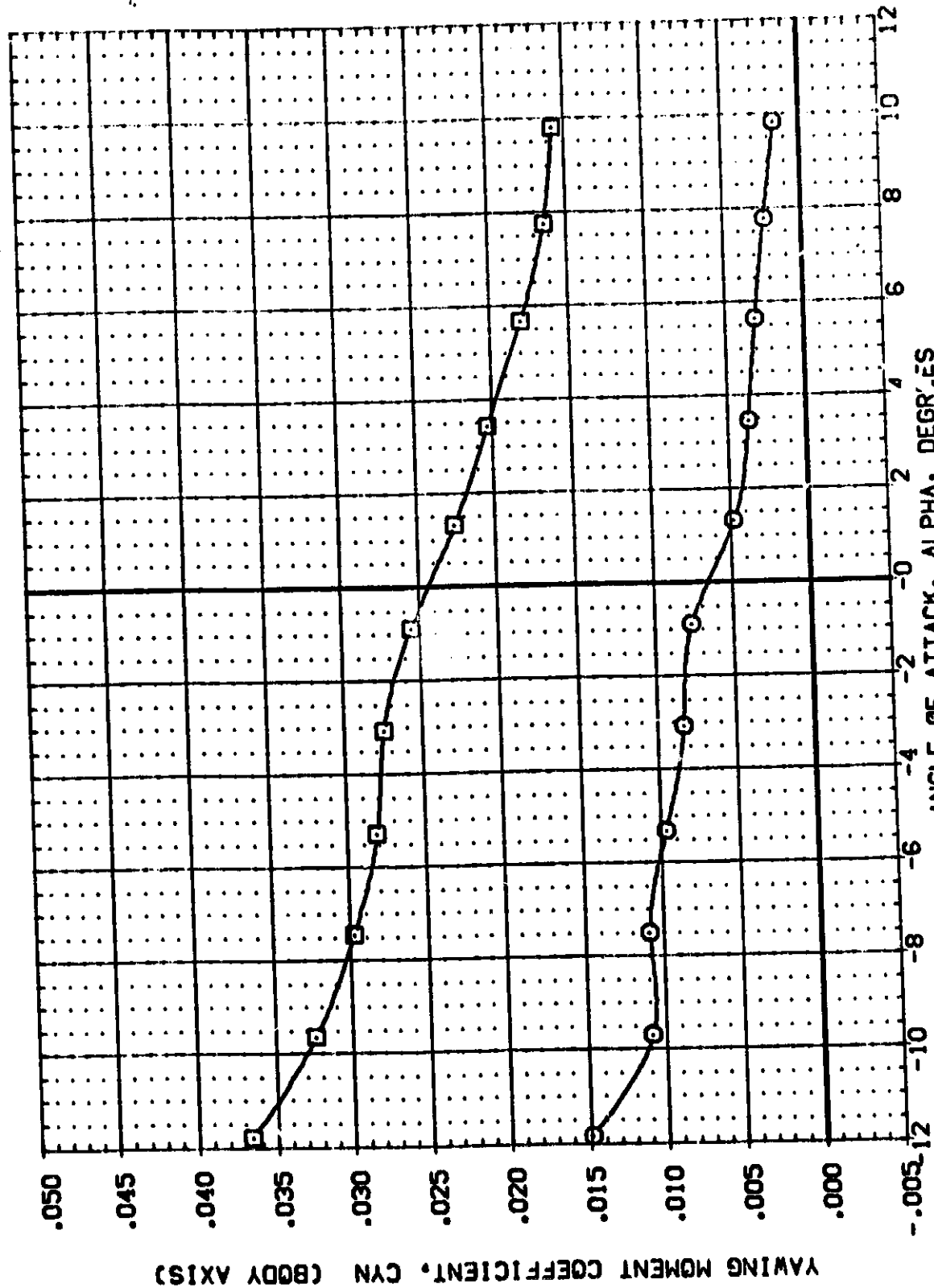


DATA SET SYMBOL: (DB1001) (DB1011)

CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN: X-SRB .500 .500
 DELTA Z: .136 .136
 RUDDER: .000 -10.000

REFERENCE INFORMATION: SREF 6.198 SQ. IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XMRP 2.548 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .004



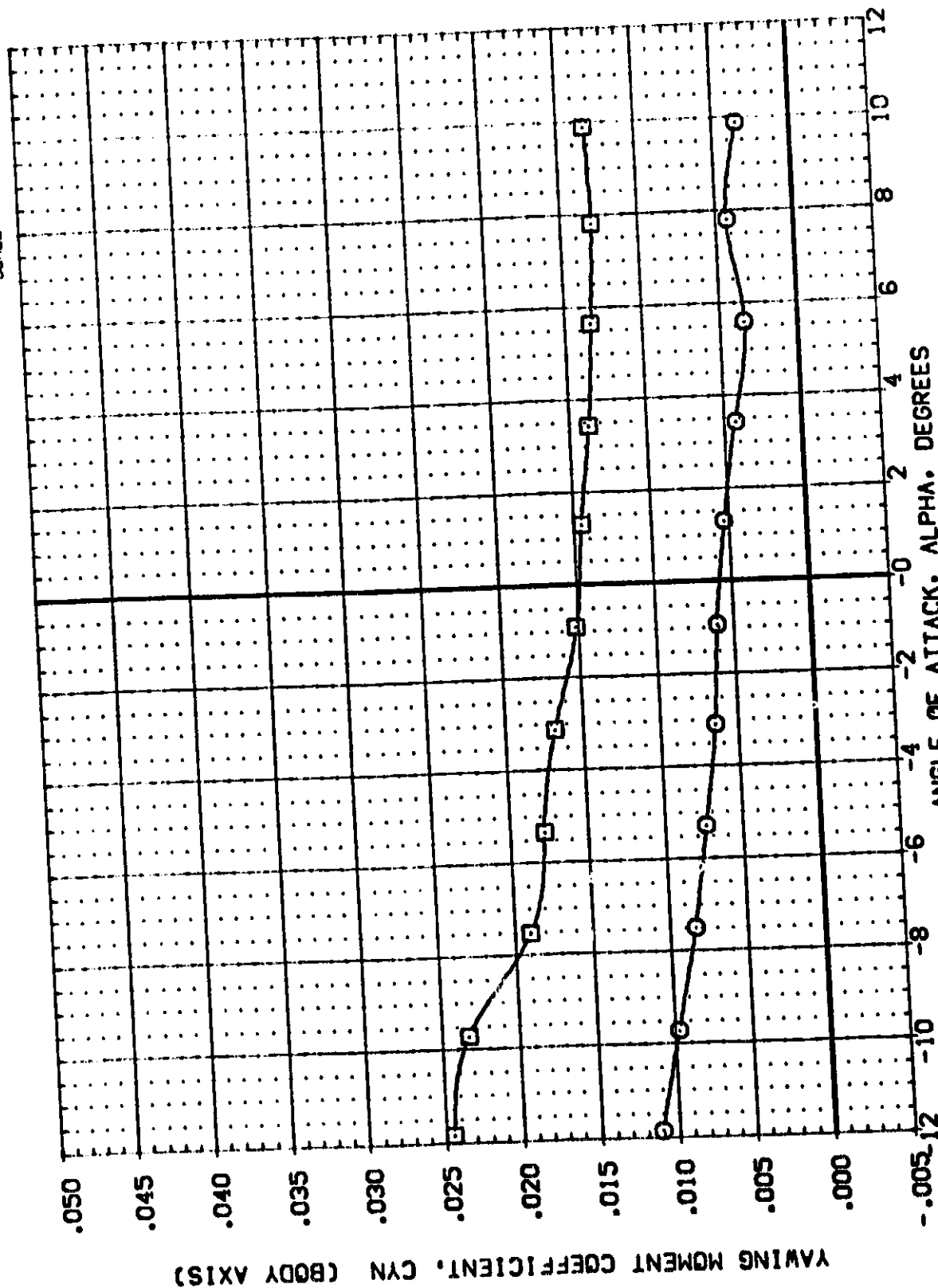
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(E)MACH = 1.45

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1001) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (DB1011) MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XMRP 2.549
 YMRP .000
 ZMRP .000
 SCALE .004



ANGLE OF ATTACK, ALPHA, DEGREES

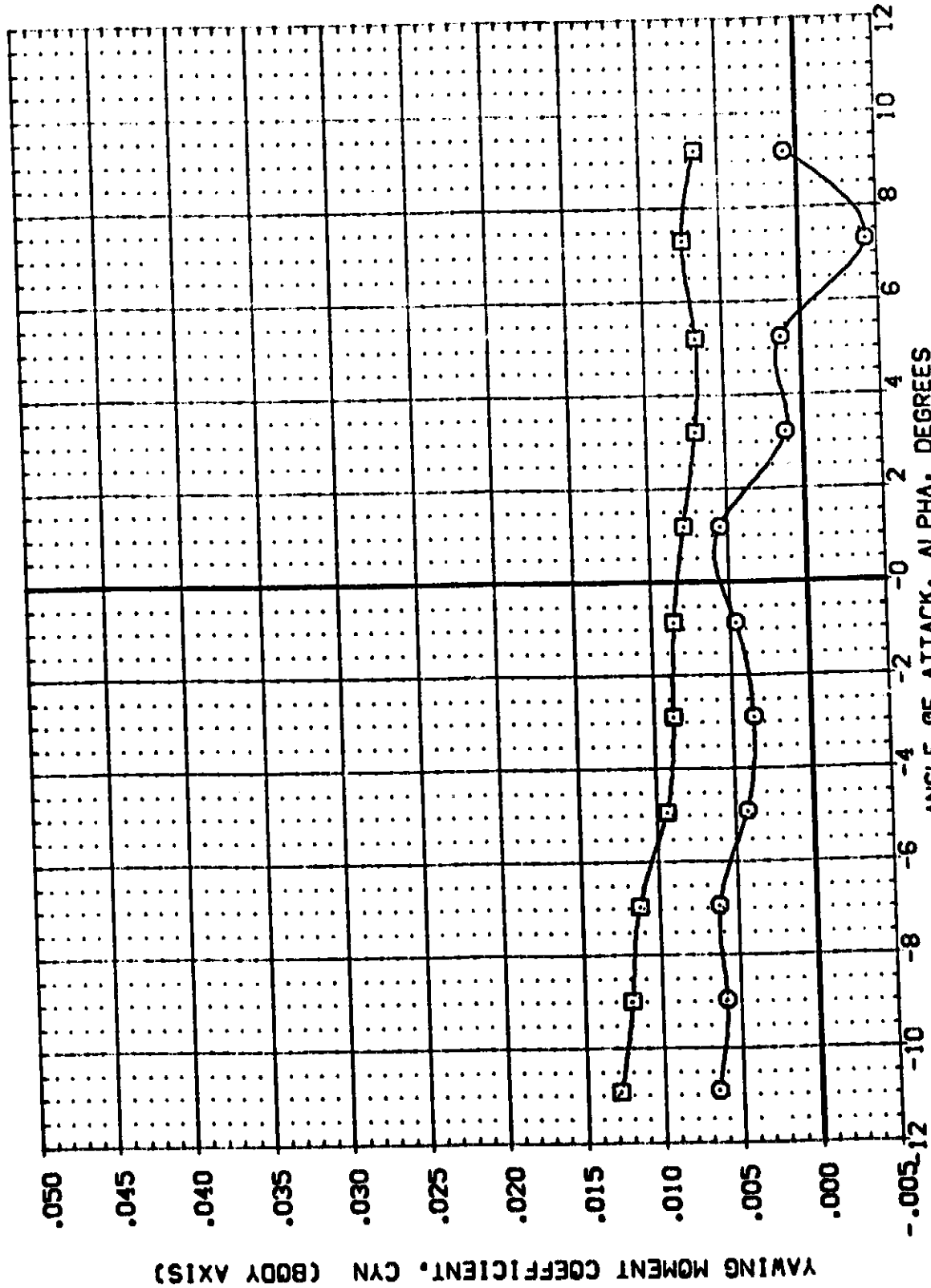
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL: MSFC 566 (1A31F) FOR 0074 LV 03 T9 53
 (081001) MSFC 566 (1A31F) FOR 0074 LV 03 T9 53
 (081011)

ORIGIN: X-508 DELTA Z: .136 RUDDER: .000
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION:
 SREF: 6.198 SQ: IN
 LREF: 5.313 IN:
 BREF: 5.313 IN:
 XPRP: 2.548 IN:
 YPRP: .000 IN:
 ZPRP: .000 IN:
 SCALE: .004



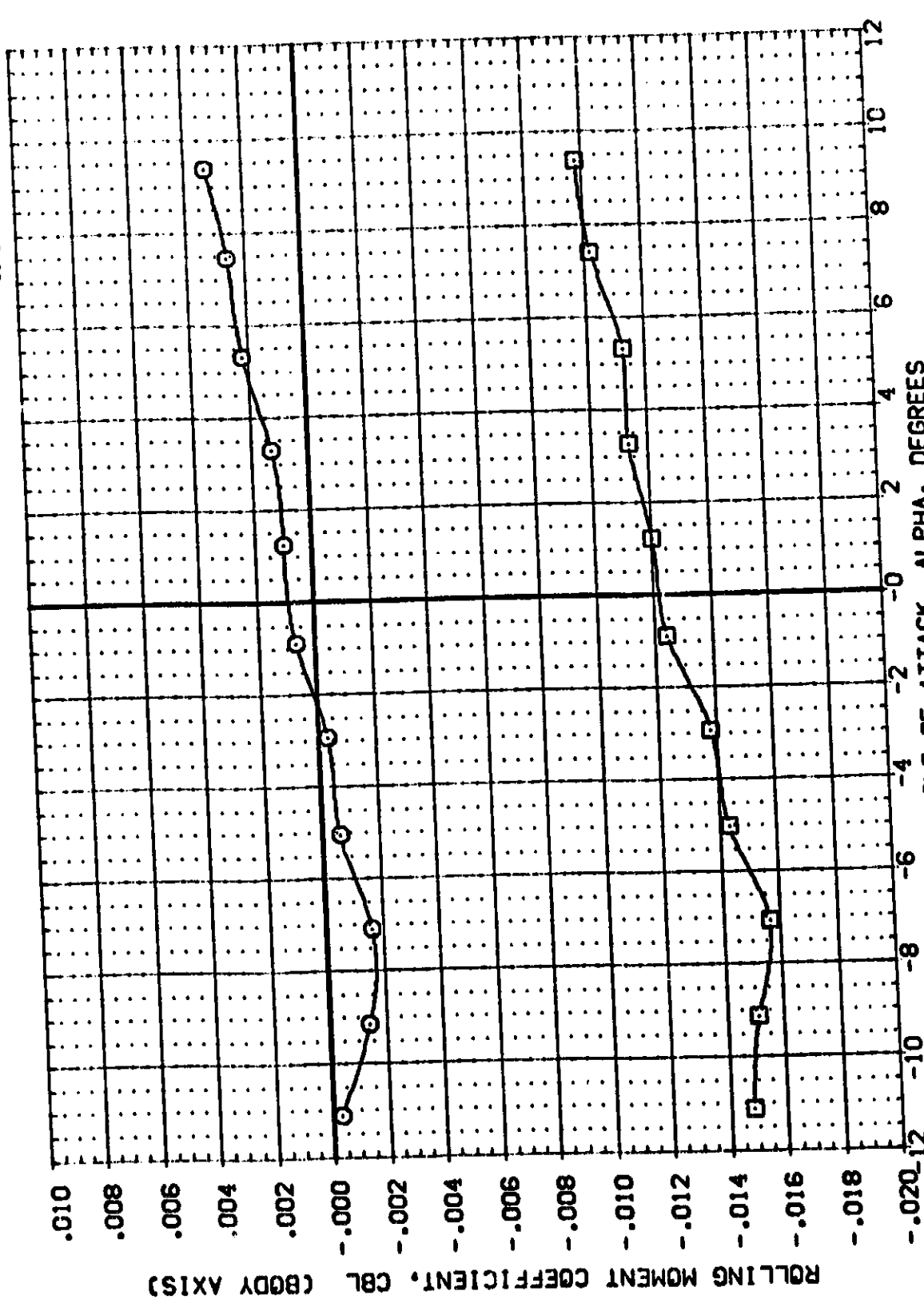
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

[G]MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1011) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
 (DB1011) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITING X-SRS DELTA Z RUDDER
 .500 .000 .000
 .500 .000 .000

REFERENCE INFORMATION
 SREF 6.198
 LREF 5.313
 BREF 5.313
 XREF 2.546
 YREF .000
 ZREF .000
 SCALE .004



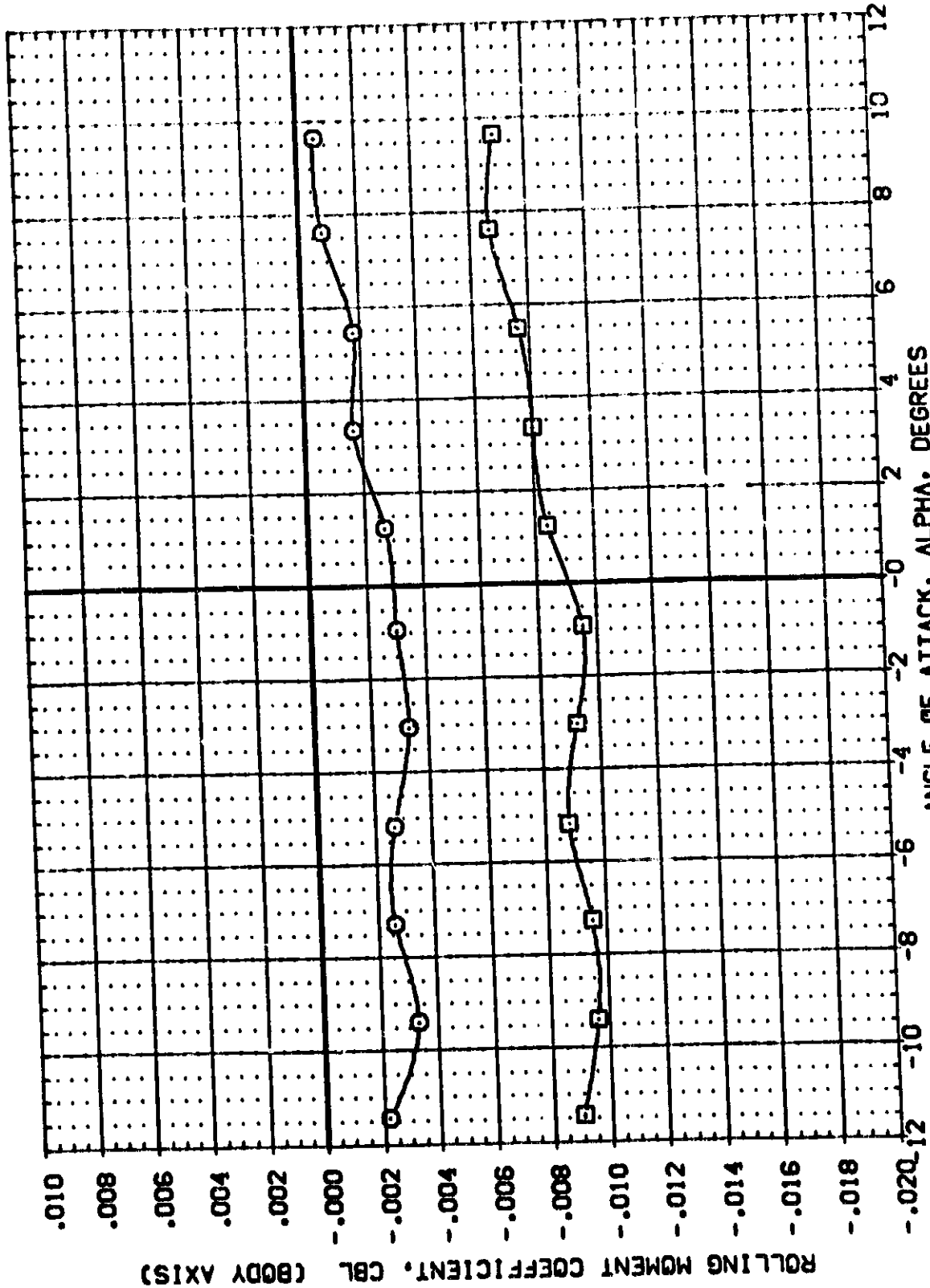
ANGLE OF ATTACK, ALPHA, DEGREES

EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(A) MACH = 0.60



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081001)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 6.198
(081011)	MSFC 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-10.000	LREF 5.313
						BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(B)MACH = 0.91

DATA SET SYMBOL

DB1001

DB1011

CONFIGURATION DESCRIPTION

MSFC 556 (1A31F) MCR 0074 LV 03 T9 S3

MSFC 556 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN

X-SRB

DELTA Z

RUDDER

6.198

5.313

5.313

2.548

.000

.000

.004

SRF

LREF

BREF

XPRP

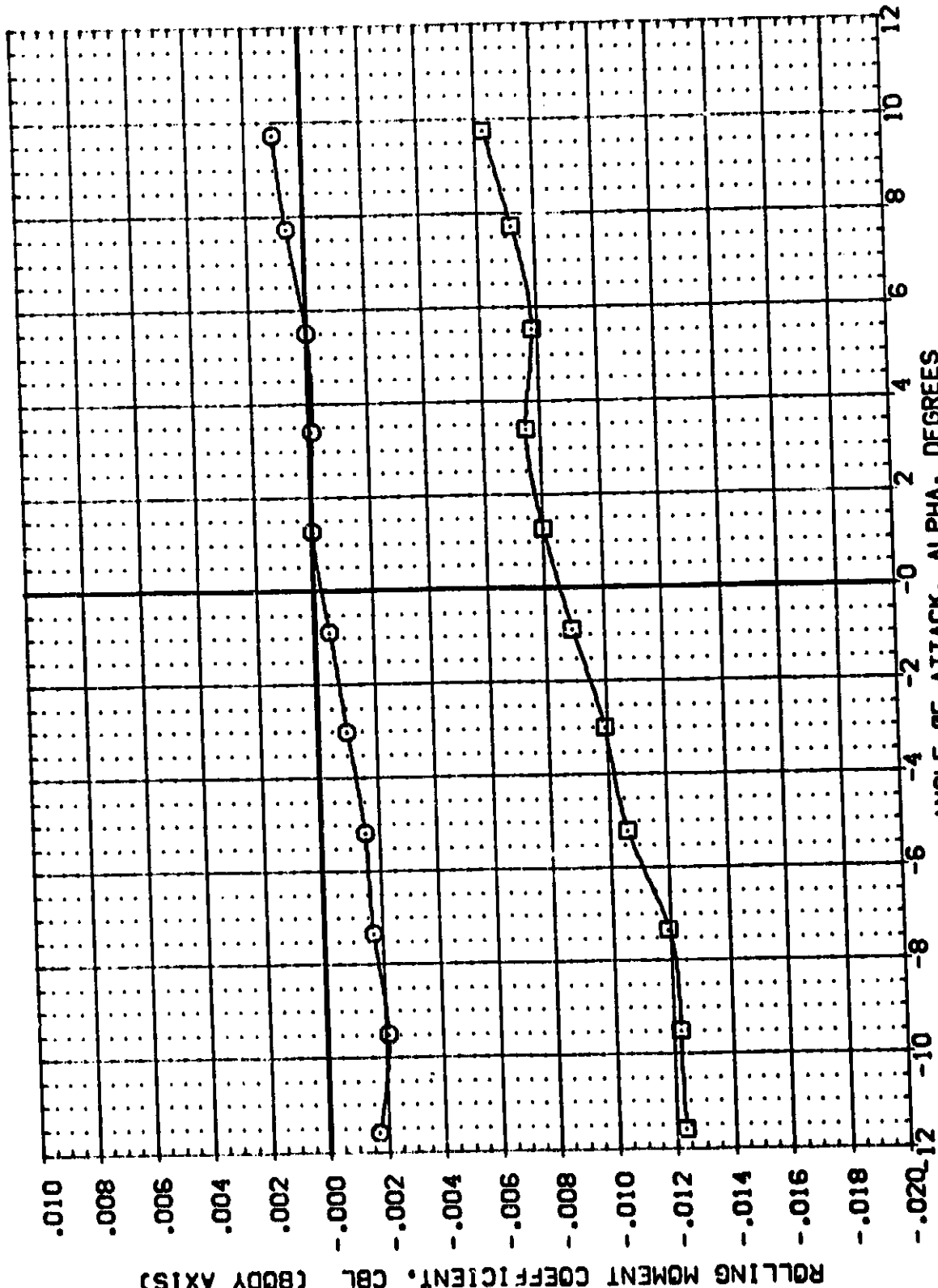
YPRP

ZPRP

SCALE

IN

2.22222



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

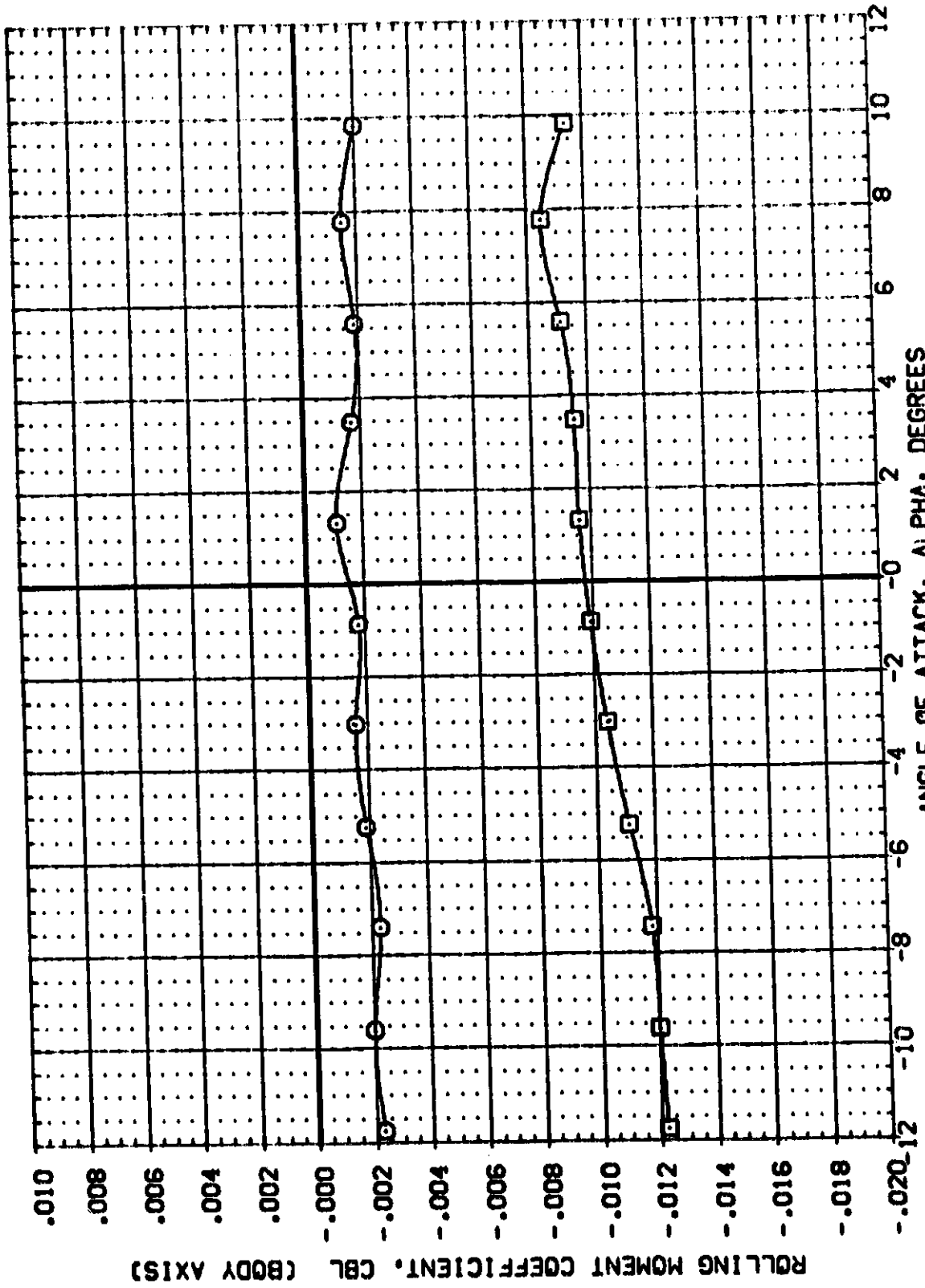
(C)MACH = 1.05

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DATA SET SYMBOL: (081001) (081011)
 CONFIGURATION DESCRIPTION: MSFC 566 (IA31F) FOR 0074 LV 03 19 S3
 MSFC 566 (IA31F) FOR 0074 LV 03 19 S3

ORBITAL X-508 DELTA Z RUDDER
 .500 .000
 .500 .000

REFERENCE INFORMATION
 SREF 6.199 IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XPRP 2.549 IN.
 YPRP .000 IN.
 ZPRP .000 IN.
 SCALE .004



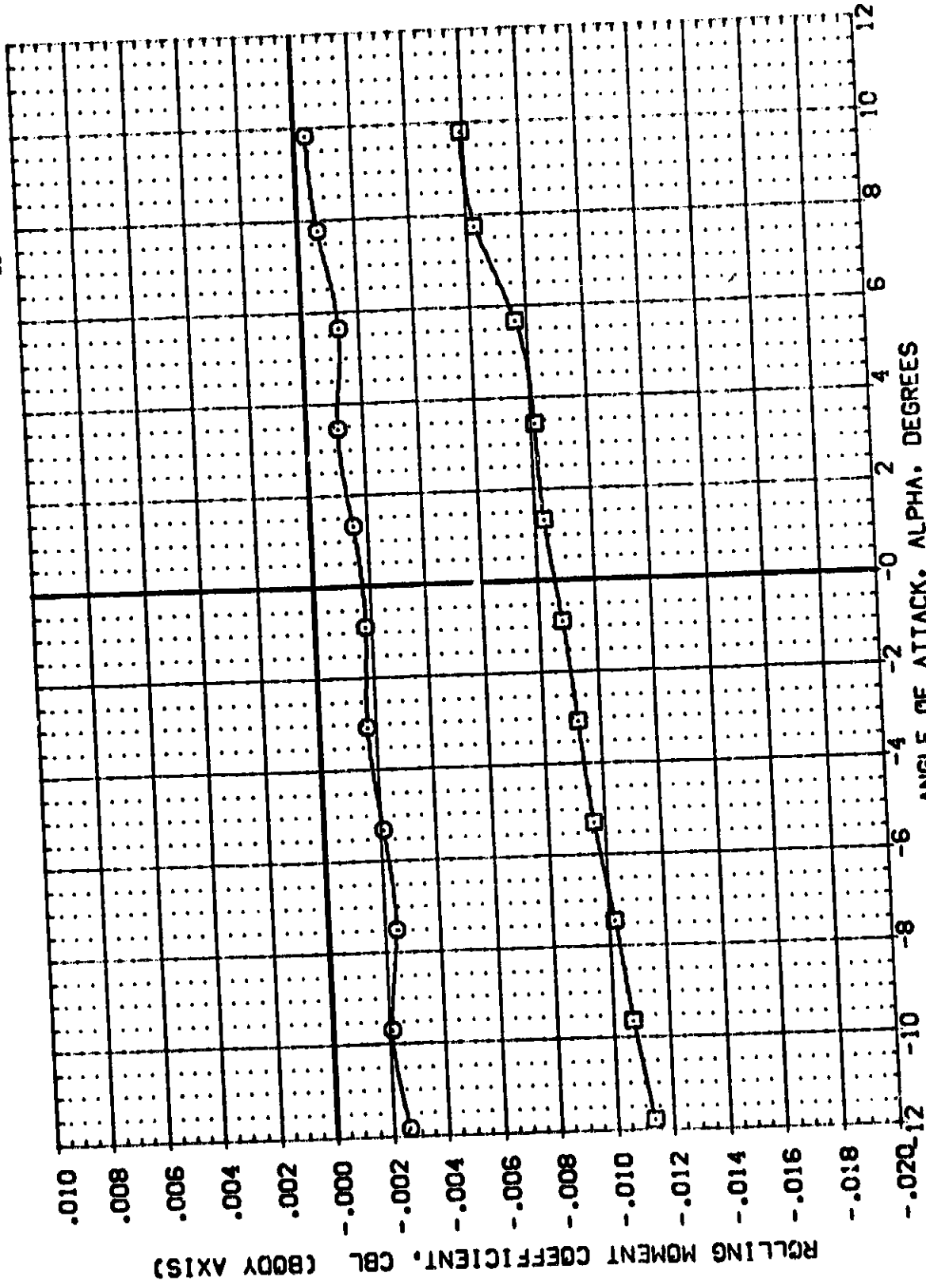
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(D)MACH = 1.25

ORIGIN X-598 DELTA Z RUDDER
 .500 .000
 .500 -10.000

REFERENCE INFORMATION
 SREF 6.198 SQ. IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XPRP 2.549 IN.
 YPRP .000 IN.
 ZPRP .000 IN.
 SCALE .004

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1001) MSFC 556 (1A31F) MCR 0074 LV 03 TS 53
 (DB1011) MSFC 556 (1A31F) MCR 0074 LV 03 TS 53



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

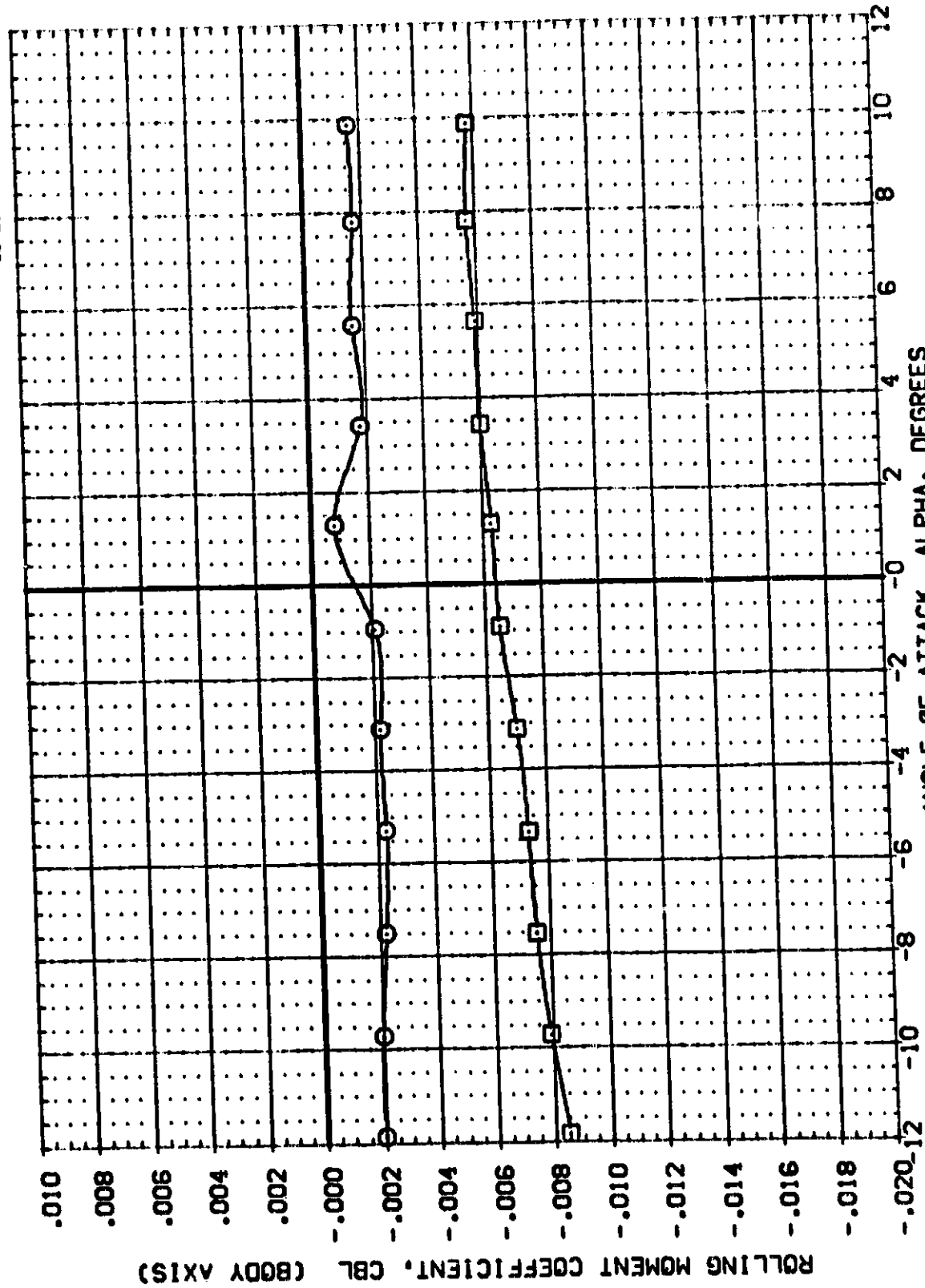
(E)MACH = 1.45



DATA SET SYMBOL: (081001) (081011)
CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN: X-SRB: .500 .500
DELTA Z: .136 .136
RUDDER: .000 -10.000

REFERENCE INFORMATION:
SREF: 6.198 IN.
LREF: 5.213 IN.
BREF: 5.313 IN.
XMRP: 2.548 IN.
YMRP: .000 IN.
ZMRP: .000 IN.
SCALE: .004

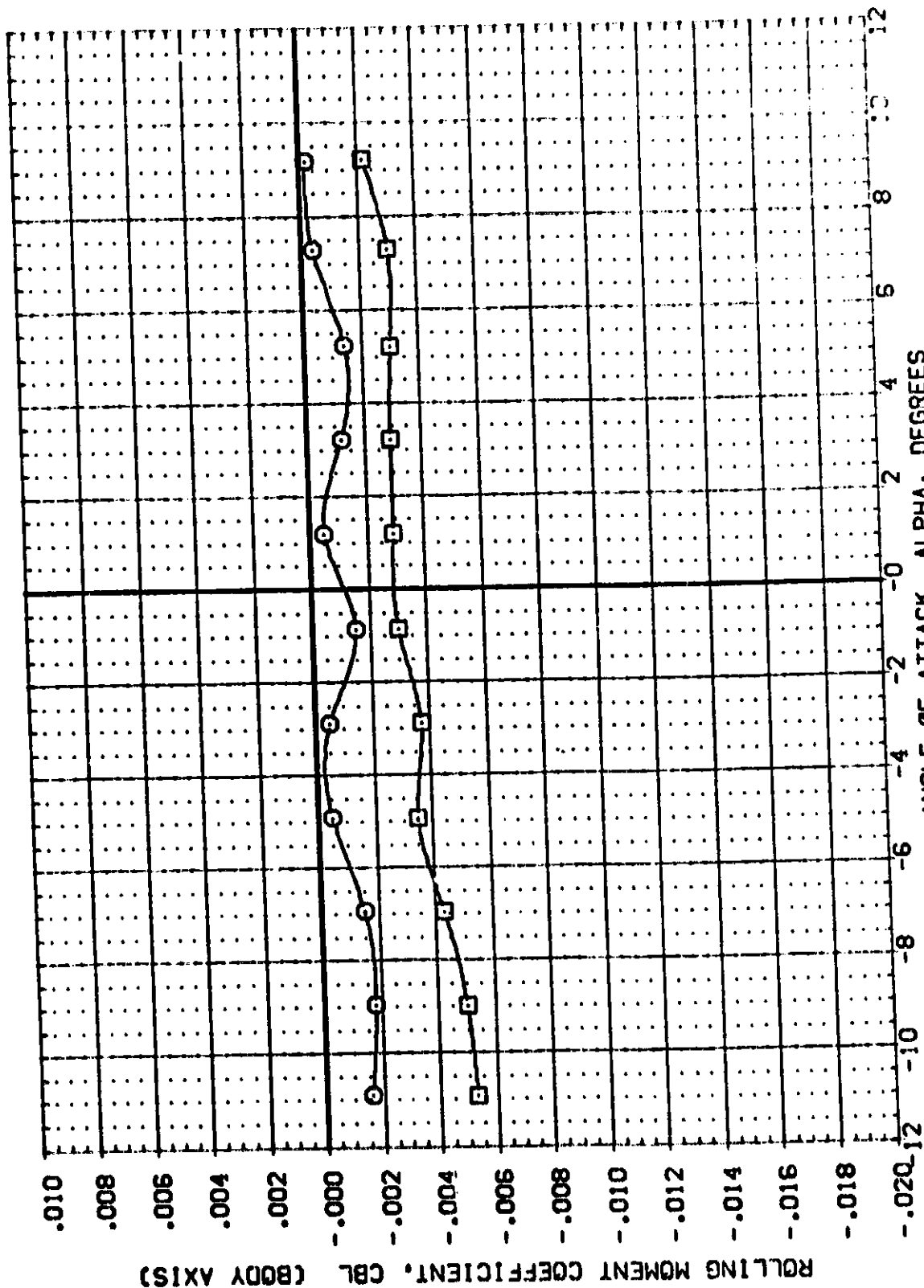


EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION SQ IN

MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	500	.000	.136	.000	SREF	5.198	22
MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	500	.000	.136	-10.000	LREF	5.313	22
					BREF	2.548	22
					XMRP	.000	22
					YMRP	.000	22
					ZMRP	.000	22
					SCALE	.001	22

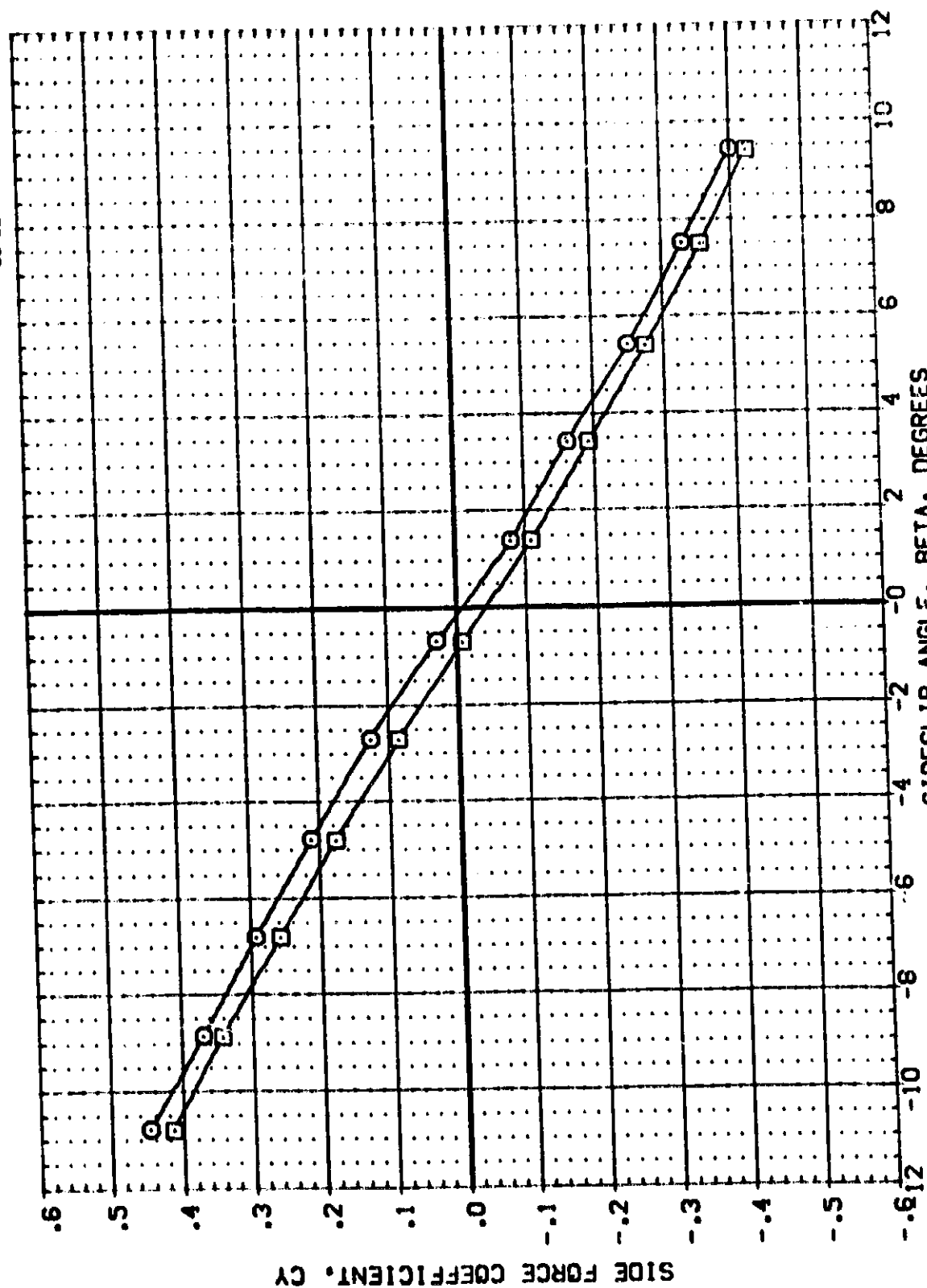


EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(G)MACH = 4.96



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORBITAL	X-SRS	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB1002)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF 5.198
(DB1012)	MSFC 566 (IA31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-10.000	LREF 5.313
						BREF 2.548
						XREF .000
						YREF .000
						ZREF .000
						SCALE .004

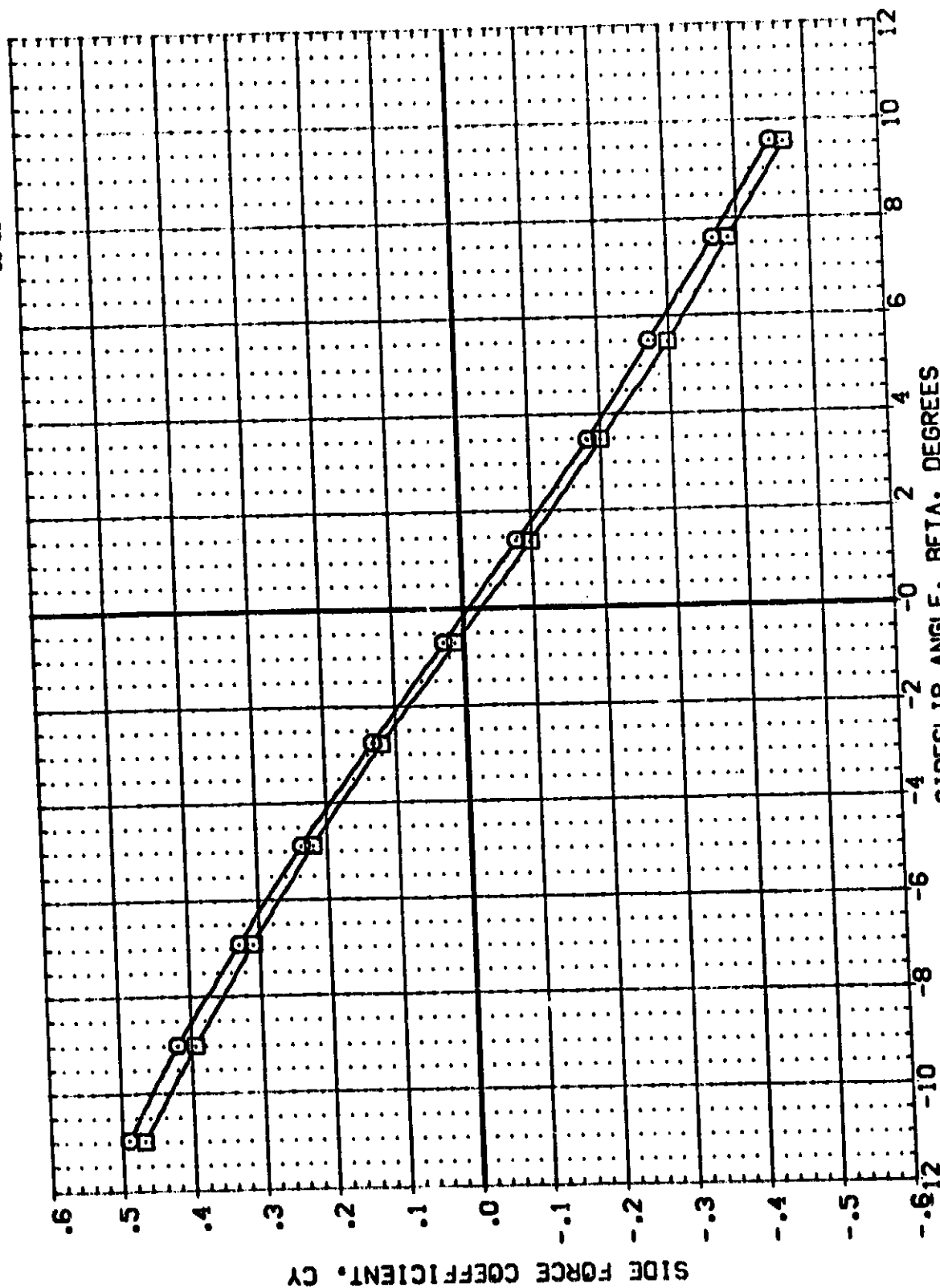


EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(M)MACH = 0.60

DATA SET SYMBOL. CONFIGURATION DESCRIPTION
 (081002) M57C 566 (1A31F) MCR 0074 LV 03 19 S3
 (081012) M57C 566 (1A31F) MCR 0074 LV 03 19 S3

ORIGIN X-SRB DELTA Z RUDDER REFERENCE INFORMATION
 .500 .000 .136 .000 SREF 6.198 SQ. IN.
 .500 .001 .136 -10.000 LREF 5.313 IN.
 DREF 5.313 IN.
 YMRP 2.549 IN.
 ZMRP .000 IN.
 SCALE .004 IN.



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

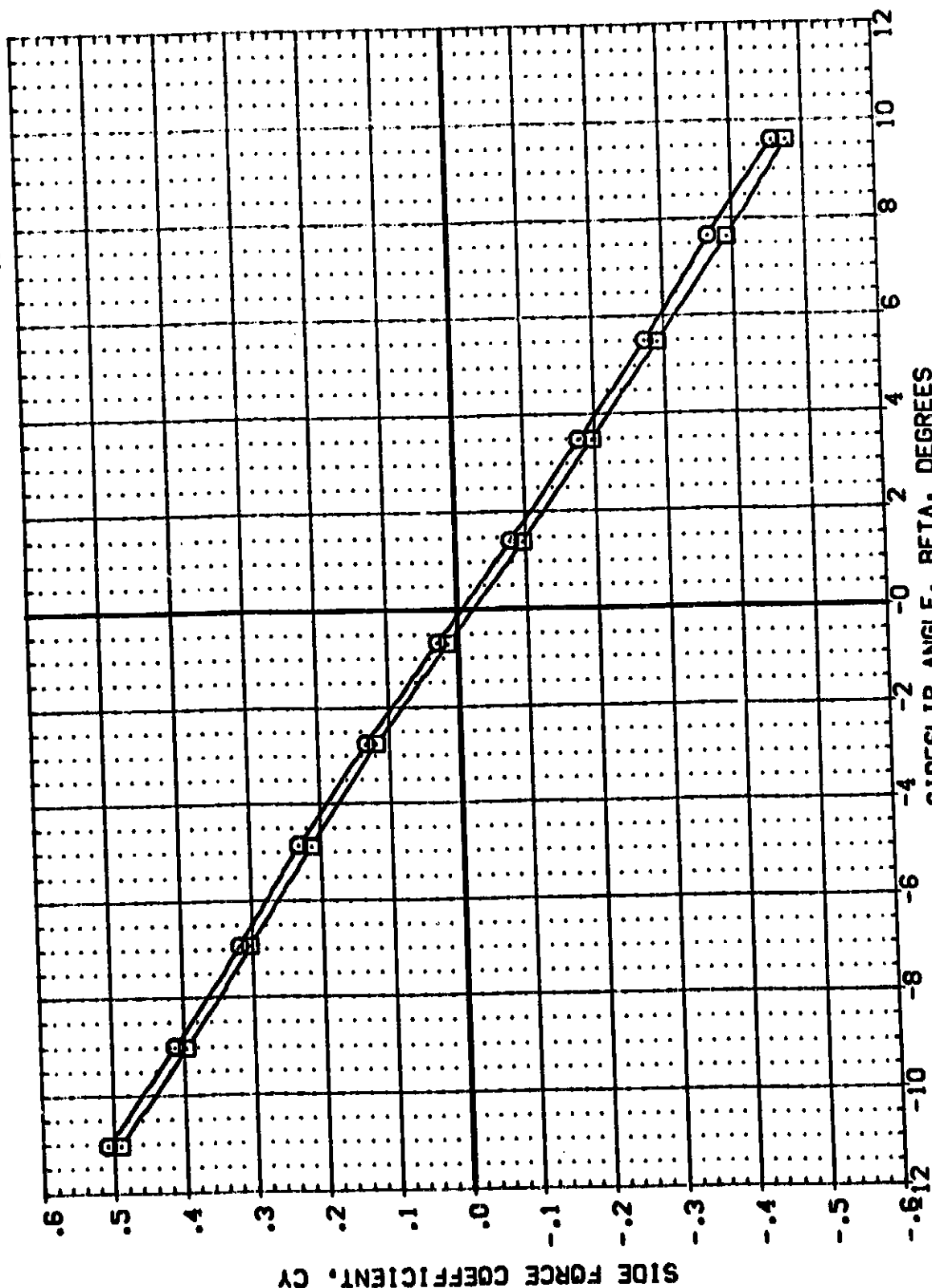
(B)MACH = 0.90

DATA SET SYMBOL: (081002)
 (081012)

CONFIGURATION DESCRIPTION:
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORIGIN: X-SRB: .500
 DELTA Z: .136
 RUDDER: .000
 -10.000

REFERENCE INFORMATION:
 SREF: 5.198
 LREF: 5.313
 BREF: 5.313
 YPRP: 2.548
 ZPRP: .000
 SCALE: .004



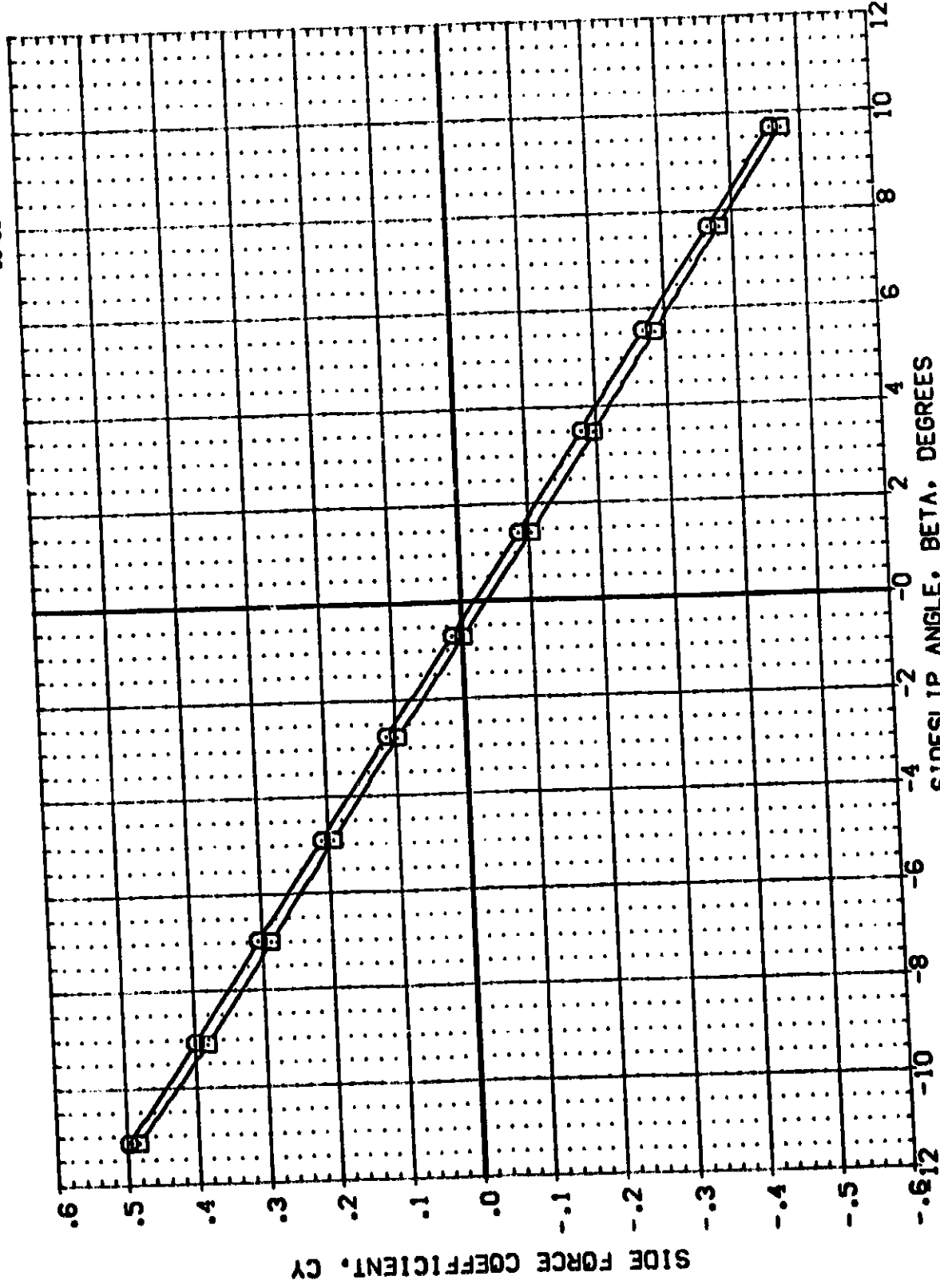
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL: (081002)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 19 53
 MSFC 566 (1A31F) MCR 0074 LV 03 19 53

ORINC X-508 DELTAZ RUDDER
 .500 .000 .000
 .500 .000 -10.000

REFERENCE INFORMATION
 SREF 6.198 SO. IN
 LREF 5.313 IN.
 BREF 5.313 IN.
 XMRP 2.549 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

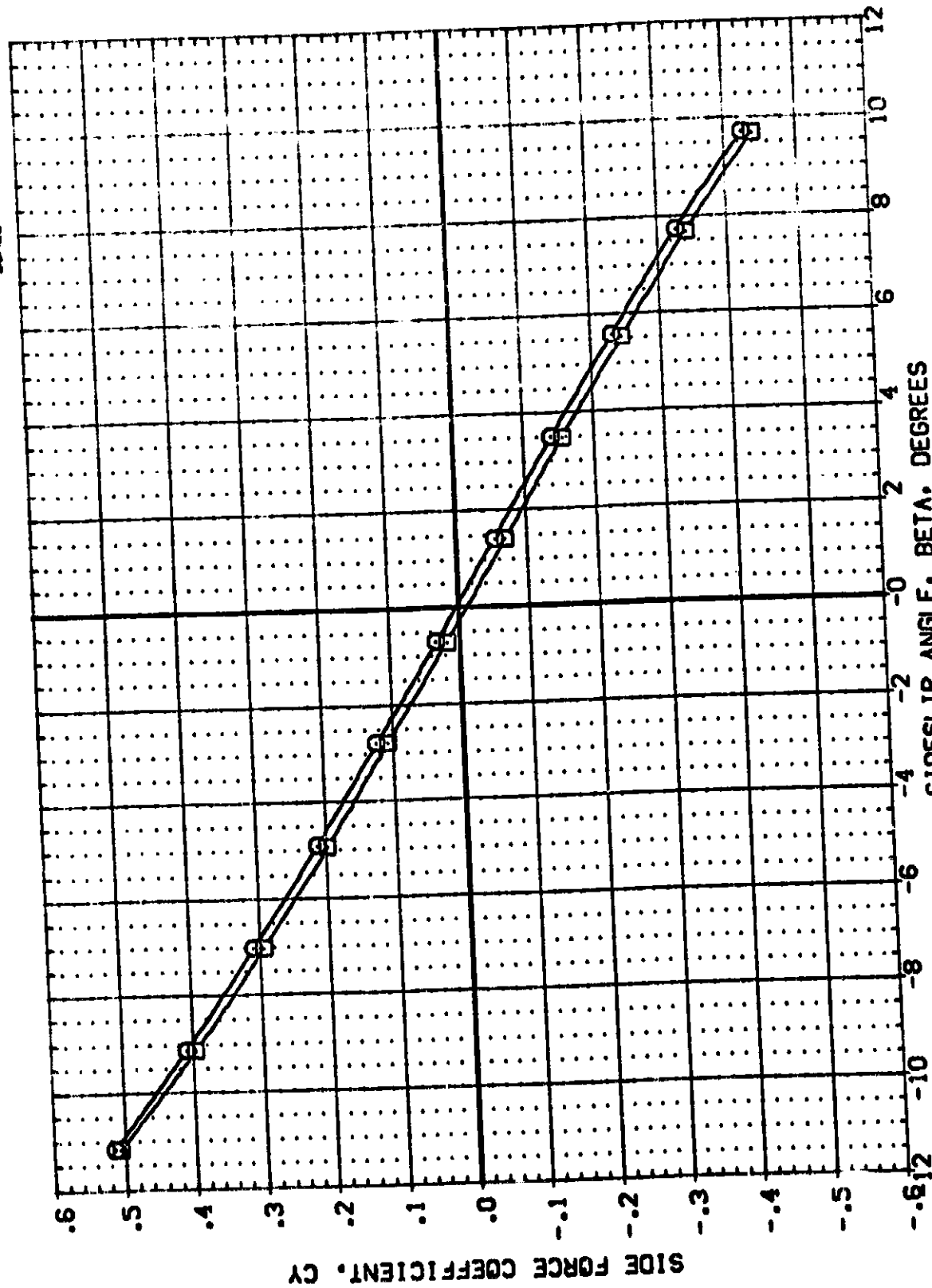
(O)MACH = 1.25

DATA SET SYMBOL: (081002)
 (081012)

CONFIGURATION DESCRIPTION:
 HSC 566 (1A31F) FOR UO74 LV 03 19 S3
 HSC 566 (1A31F) FOR UO74 LV 03 19 S3

ORBITAL X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .000 -10.000

REFERENCE INFORMATION:
 SREF 6.199
 LREF 5.313
 BREF 5.313
 XREF 2.545
 YREF .000
 ZREF .000
 SCALE .001

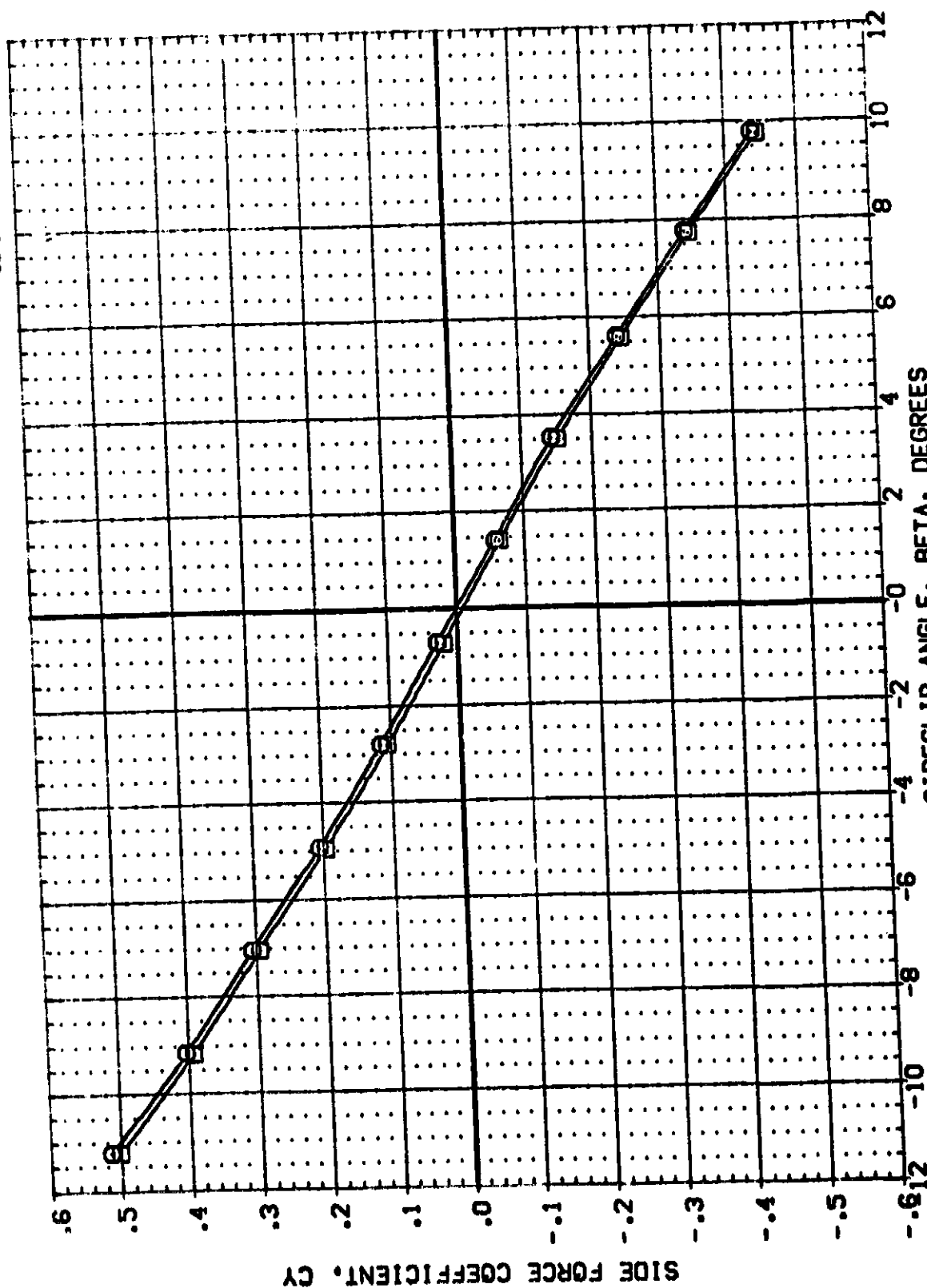


EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

SRB INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SQ. IN
.500	.000	.136	.000	SREF	6.198
.500	.000	.136	-10.000	LREF	5.313
				XPRP	2.549
				YPRP	.000
				ZPRP	.000
				SCALE	.001

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	LV	03	19	53
[C81002]	MSFC S55 (IA31F) MCR 0074	LV	03	19	53
[C81012]	MSFC S55 (IA31F) MCR 0074	LV	03	19	53



612 -10 -8 -6 -4 -2 0 2 4
SIDESLIP ANGLE, BETA, DEGREES

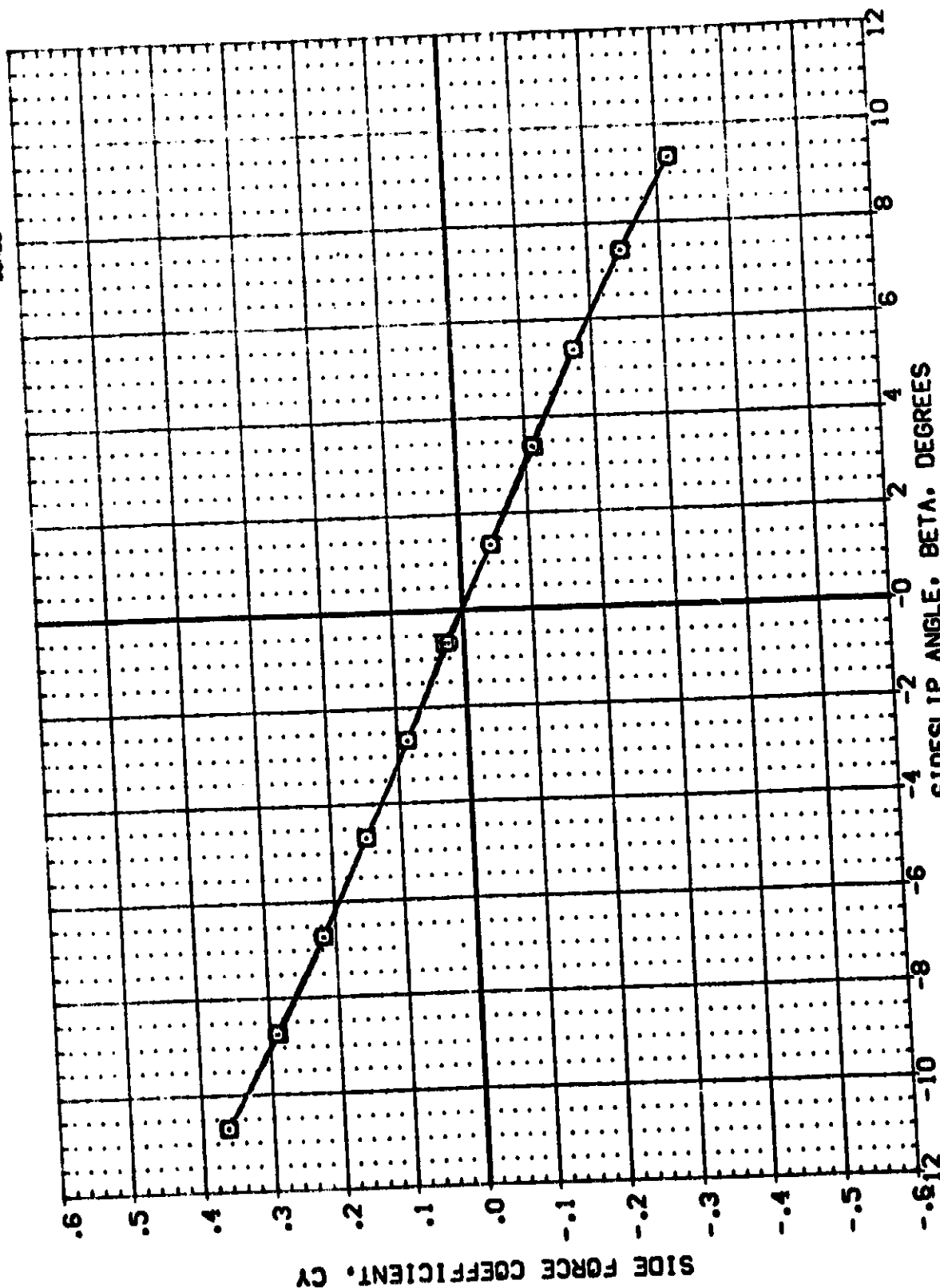
$$\{F\}_{MACH} = 1.96$$

DATA SET SYMBOL: (081002) (081012)

CONFIGURATION DESCRIPTION: MSC 566 (1A31F) MCR 0074 LV 03 19 S3
MSC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SRB DELTAZ RUDDER REFERENCE INFORMATION

ORBITAL	X-SRB	DELTAZ	RUDDER	SRF	IN.
.500	.000	.136	.000	6.196	IN.
.500	.000	.136	-10.000	5.313	IN.
				5.313	IN.
				2.549	IN.
				.000	IN.
				.000	IN.
				.004	IN.



SIDESLIP ANGLE, BETA, DEGREES

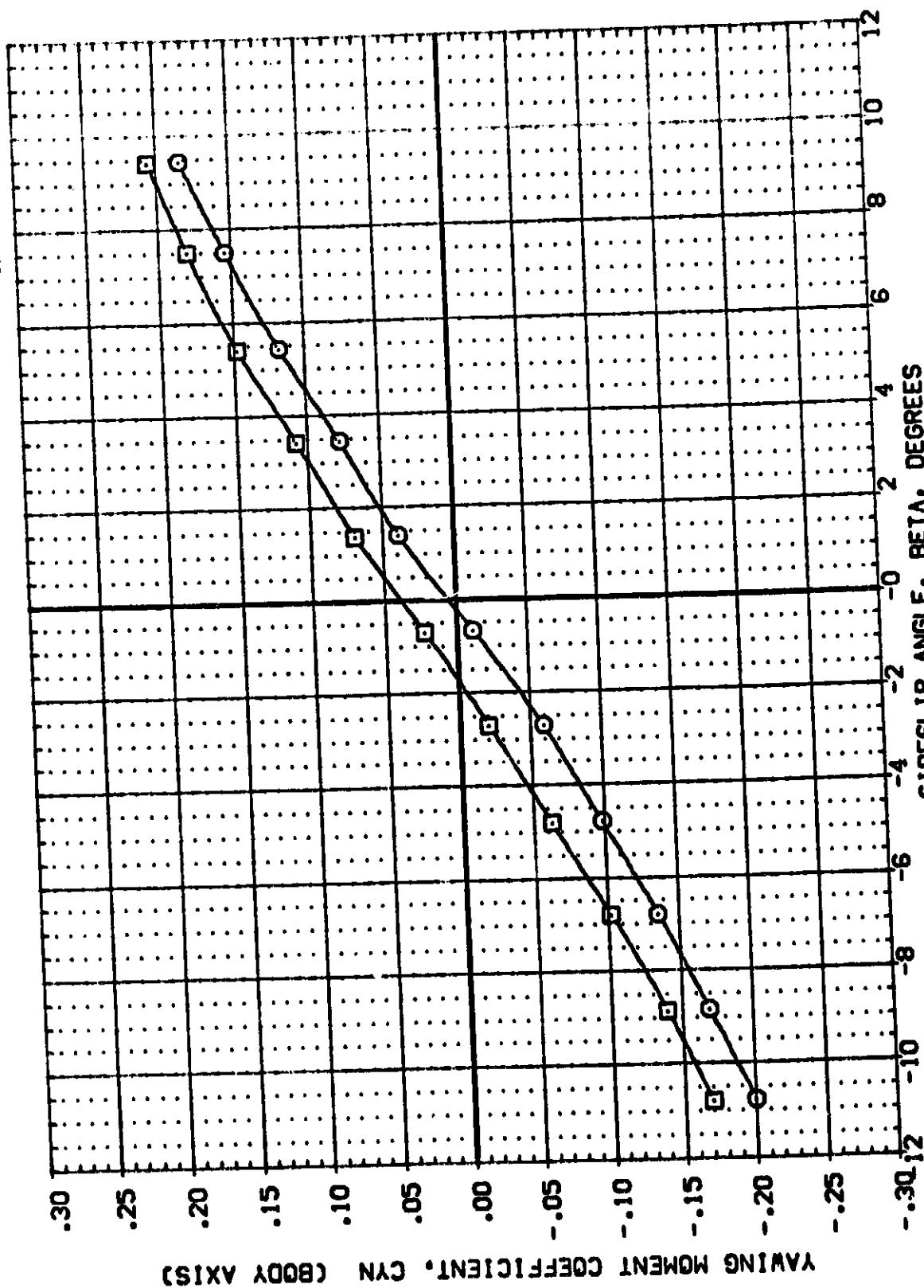
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1002) MSC 566 (1A31F) MOR 0074 LV 03 TS S3
 (DB1012) MSC 566 (1A31F) MOR 0074 LV 03 TS S3

ORIGIN X-518 DELTAZ RUDDER
 .500 .000 .000
 .500 .000 -10.000

REFERENCE INFORMATION
 SREF 6.198 SO. IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XMRP 2.548 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

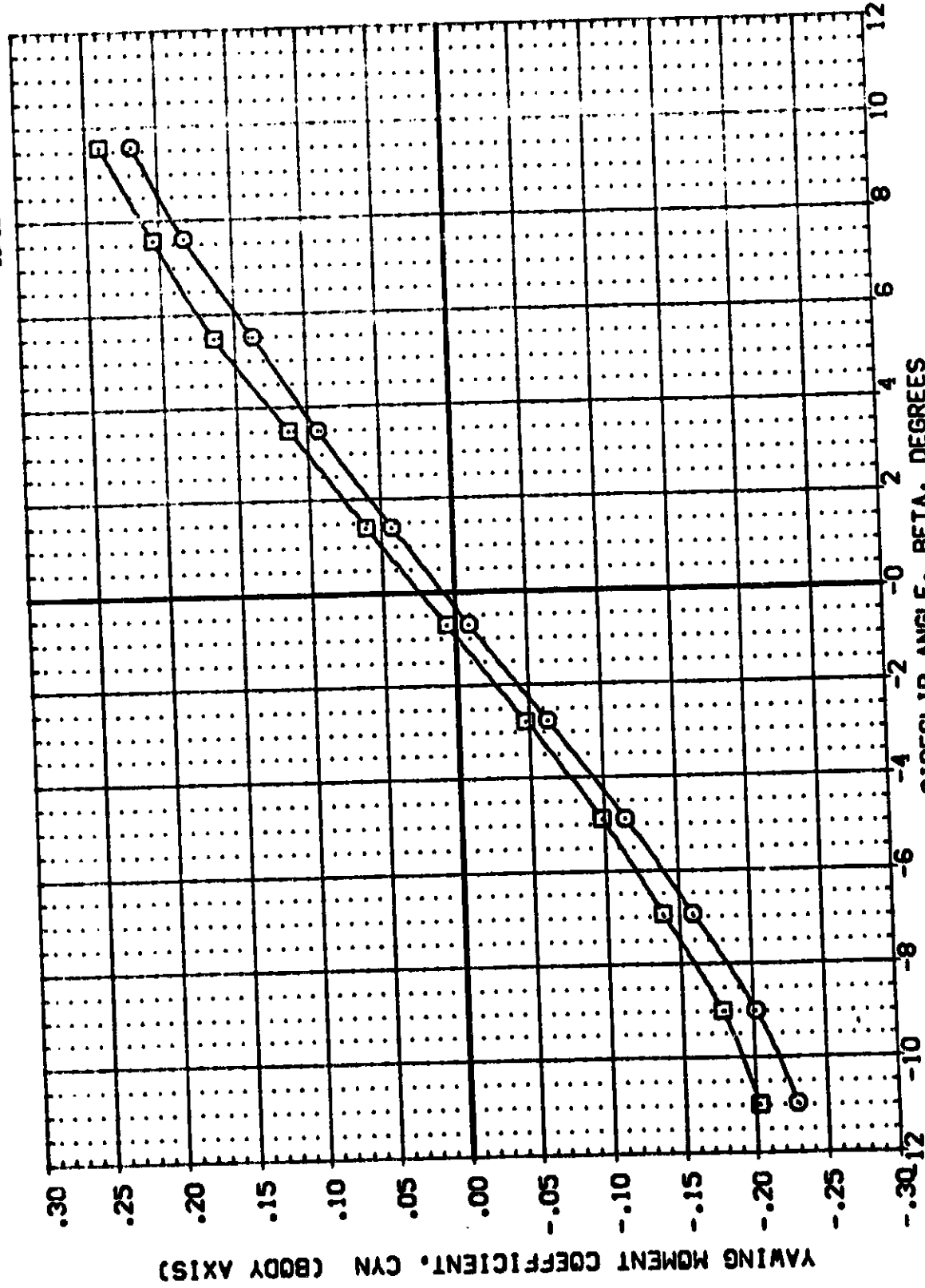
(A)MACH = 0.60



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (081002) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3
 (081012) MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SUB DELTA Z RUDDER
 .500 .000 .000
 .500 .000 -10.000

REFERENCE INFORMATION
 SREF 6.198 SO. IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XMRP 2.546 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

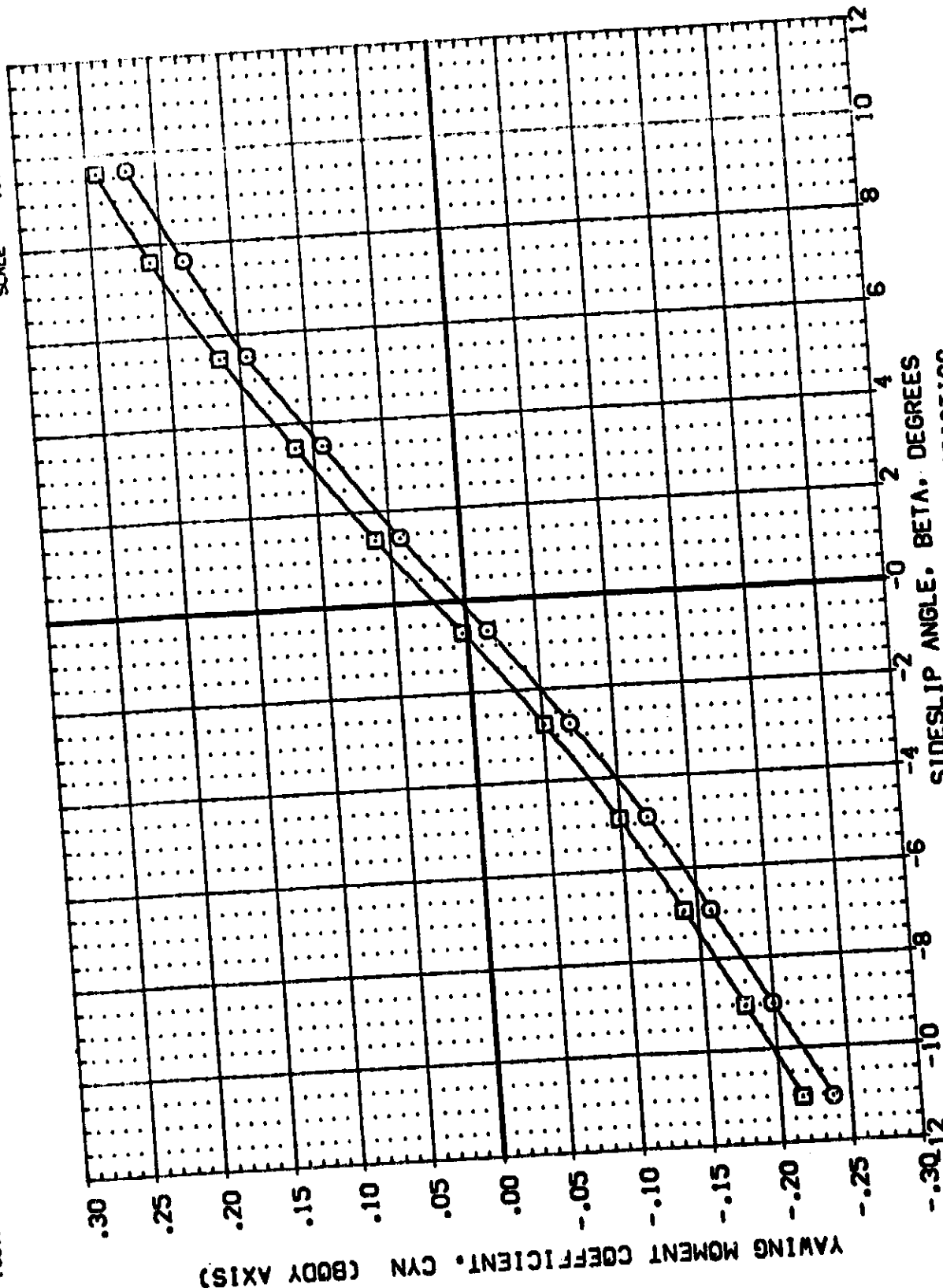
(B)MACH = 0.90

DATA SET SYMBOL: (DB1002)
(DB1012)

CONFIGURATION DESCRIPTION:
M5FC 566 (1A31F) MCR 0074 LV 03 19 S3
M5FC 566 (1A31F) MCR 0074 LV 03 19 S3

ORBITAL X-SUB DELTA Z RUDDER
.500 .000 .000
.500 .000 -10.000

REFERENCE INFORMATION:
SREF 6.198
LREF 5.313
BREF 5.313
XMRP 2.549
YMRP .000
ZMRP .000
SCALE .00%



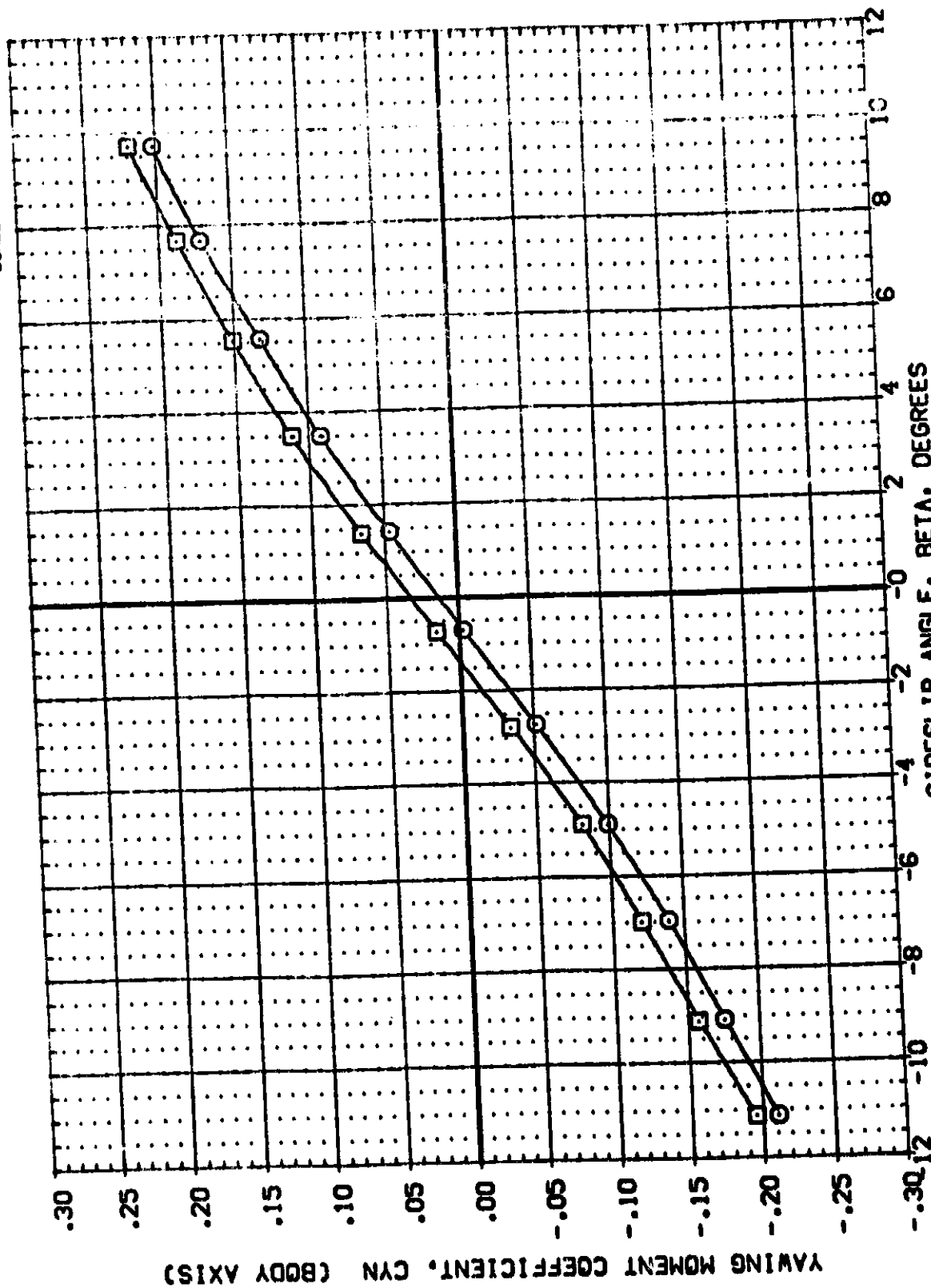
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.05



DATA SET SYMBOL: (081002) (281012)
CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MOR 0074 LV 03 T9 S3
MSFC 566 (1A31F) MOR 0074 LV 03 T9 S3

ORBITAL X-908 DELTA Z RUDDER REFERENCE INFORMATION IN
.500 .000 .000 SREF 6.198 SQ.
.500 .000 .000 LREF 5.313 IN.
-10.000 .136 .136 BREF 5.313 IN.
X-908 X-908 Y-908 Z-908
Y-908 Z-908
SCALE .001



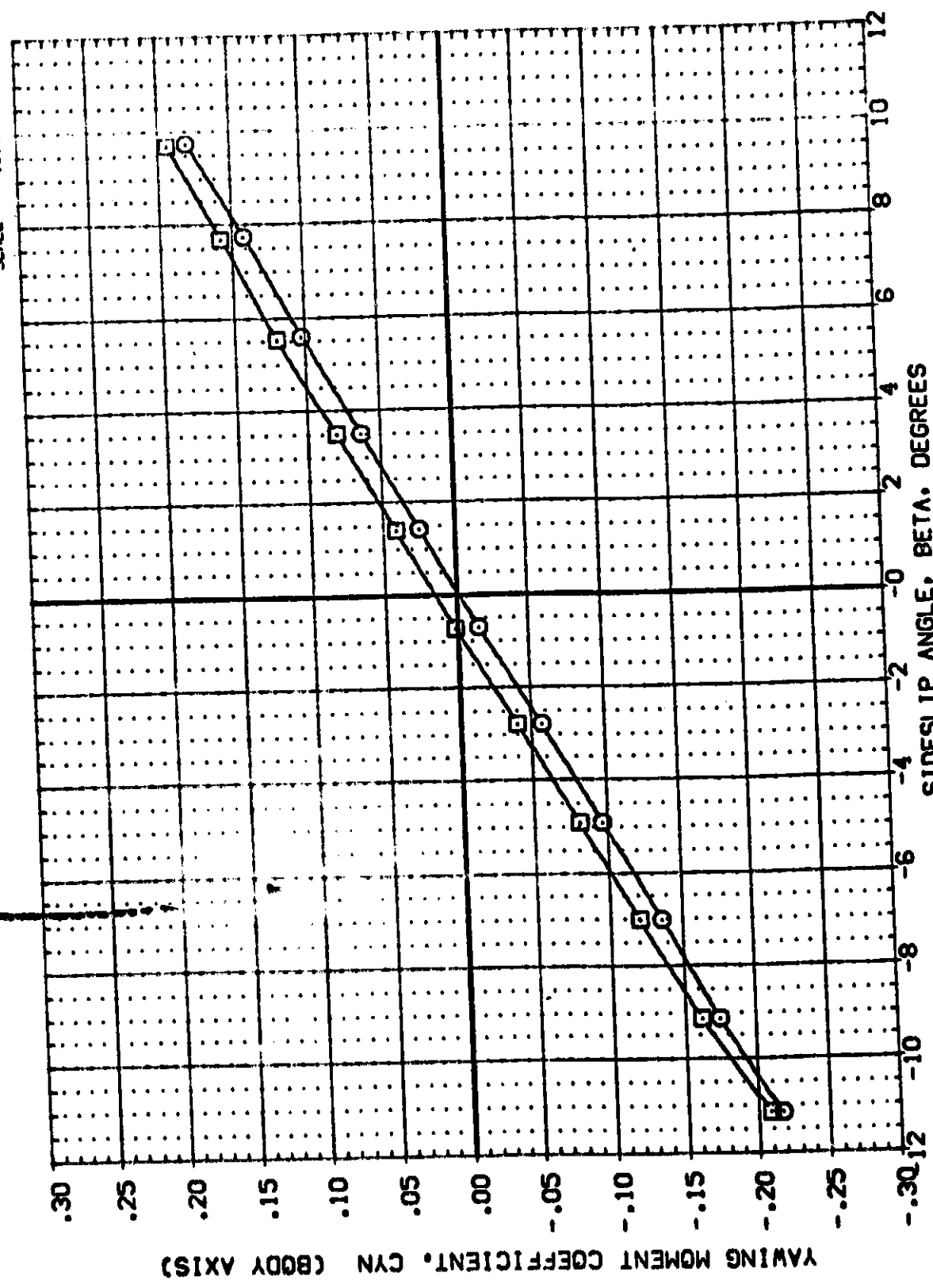
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

MACH = 1.25

ORIGIN X-SRB DELTA Z RUDDER
 .500 .000 .136 .000
 .500 .000 .136 -10.000

REFERENCE INFORMATION
 SREF 6.198 IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XMRP 2.546 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .001

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (DB1002) H5FC 566 (1A31F) FOR 0074 LV 03 T9 S3
 (DB1012) H5FC 566 (1A31F) FOR 0074 LV 03 T9 S3



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

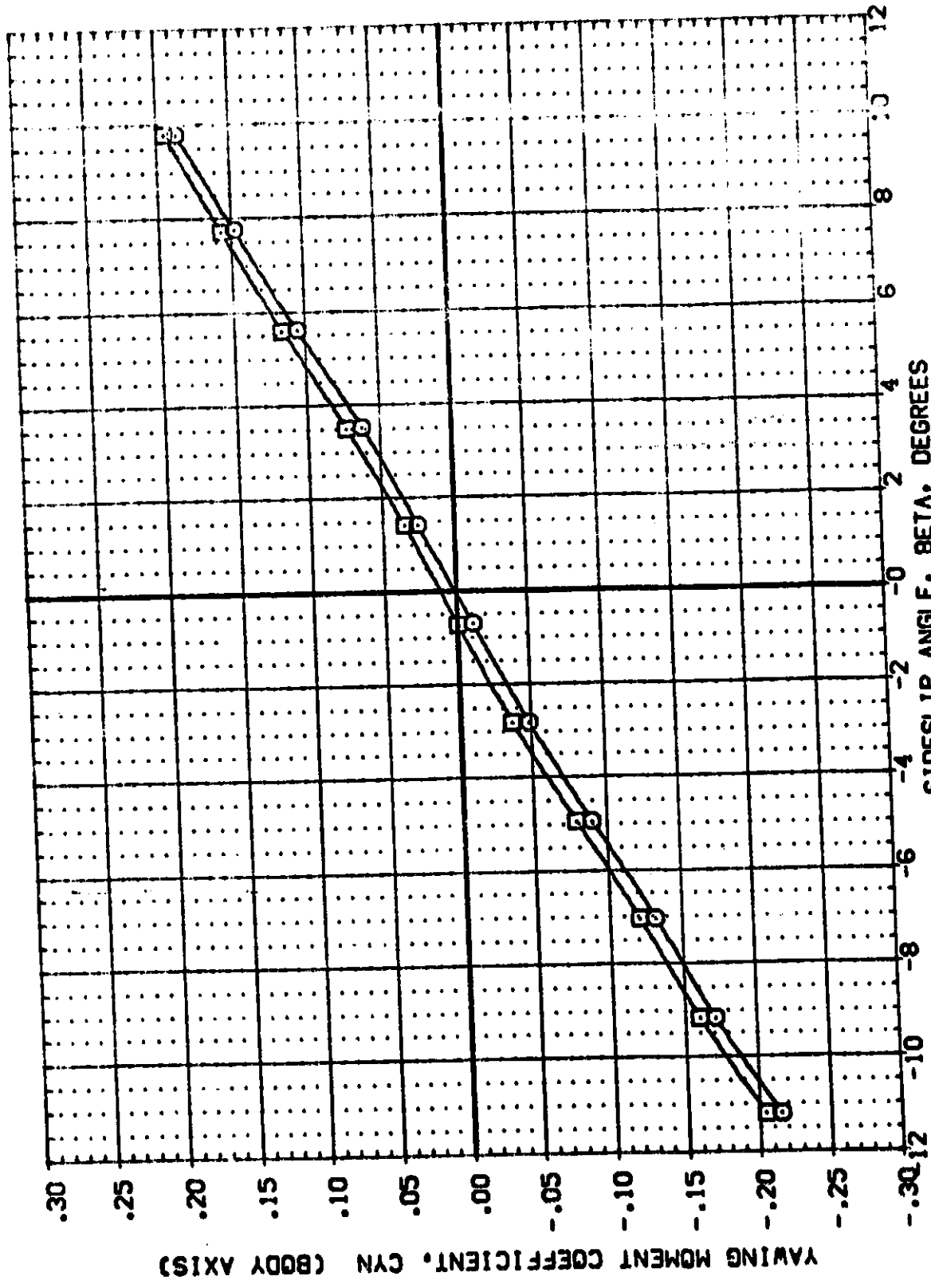
(E)MACH = 1.46



DATA SET SYMBOL: (081002) (081012) CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) FOR 0074 LV 03 19 S3 MSFC 566 (1A31F) FOR 0074 LV 03 19 S3

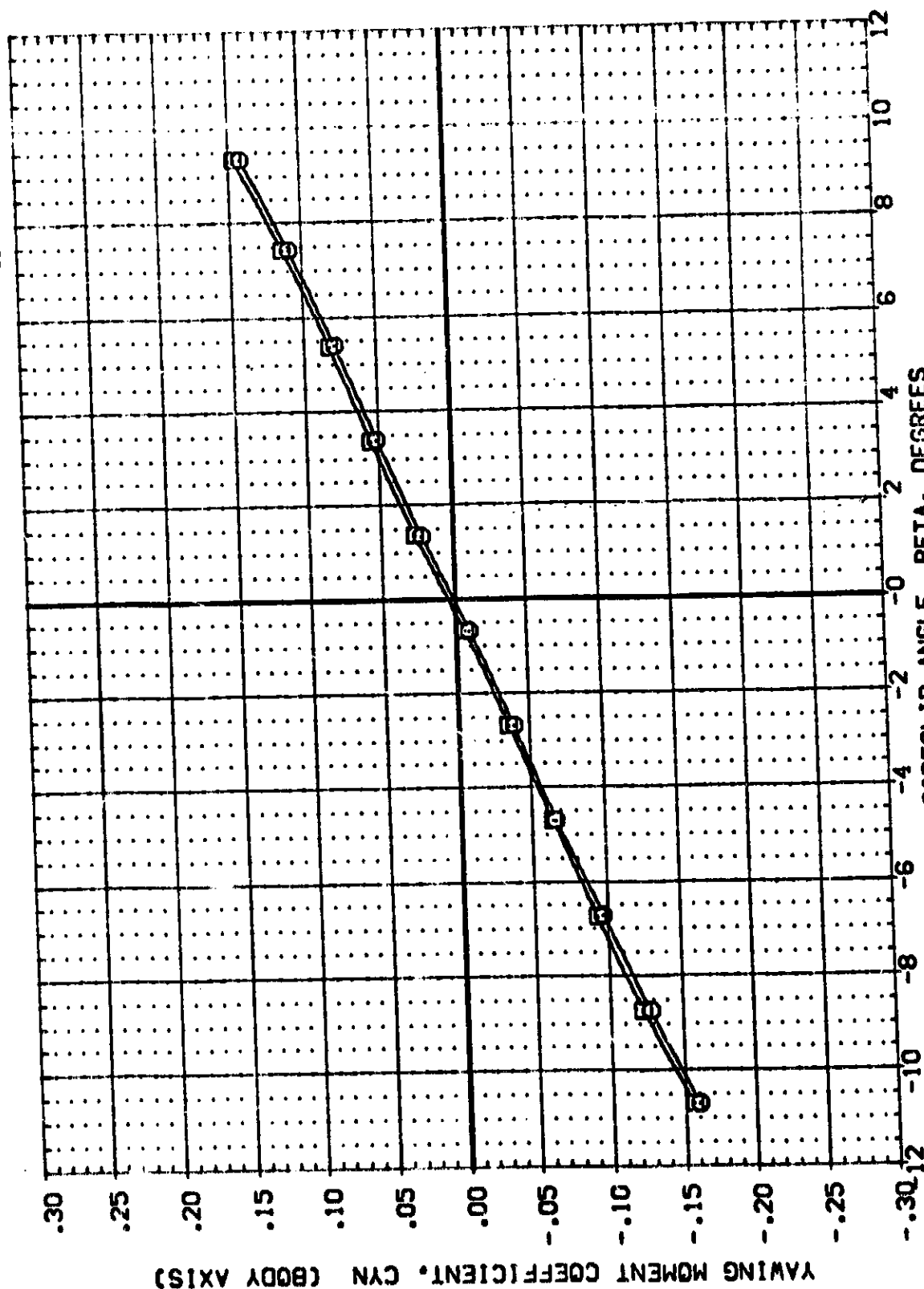
DESIGN X-SRB DELTAZ RUDDER REFERENCE INFORMATION

DESIGN	X-SRB	DELTAZ	RUDDER	SREF	6.19H	SC	1N
.500	.000	.136	.000	LREF	5.313	2N	2N
.500	.000	.136	-10.000	BREF	5.313	2N	2N
				XMRP	2.000		
				YMRP	0.000		
				ZMRP	0.000		
				SCALE	.000		



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

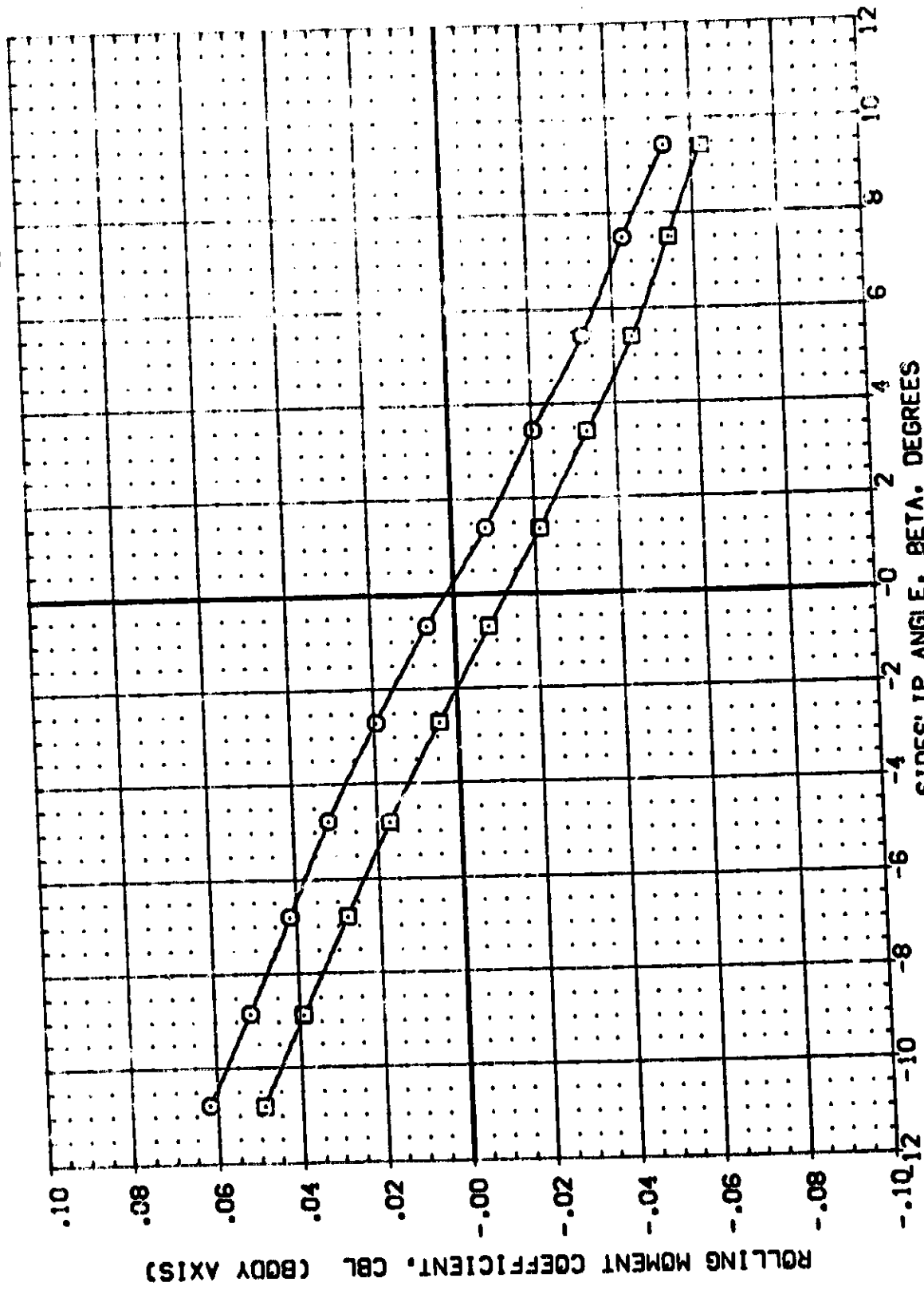
[illegible]

3012 -10 -8 -6 -4 -2
SIDESLIP ANGLE, BETA, DEGREES
EFFECT OF RUBBER DEFECTION ON STABILITY CHARACTERISTICS

{G}MACH = 4.96



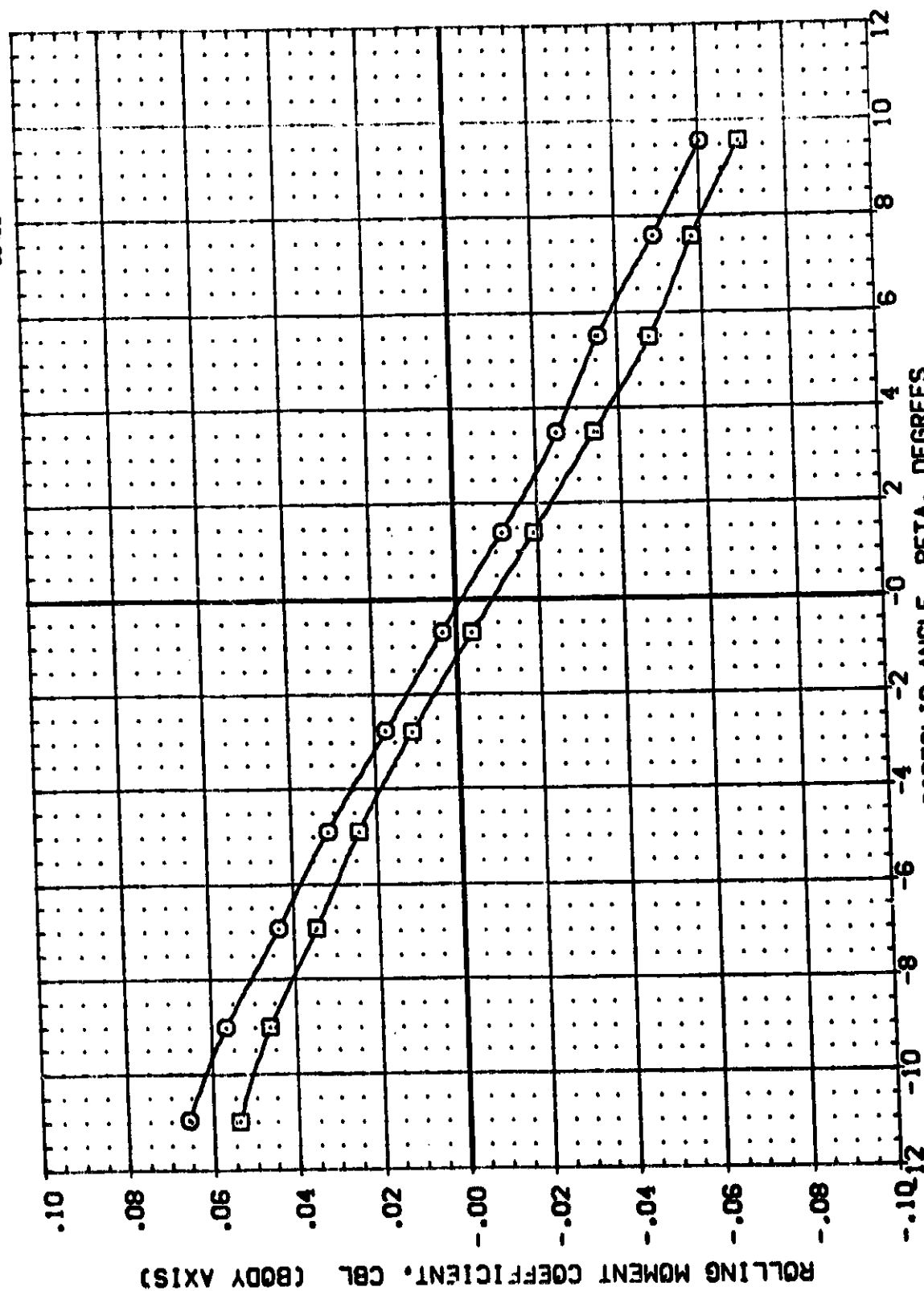
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DRAG INC	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION	SO. IN
(081002)	M57C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SREF	5.198
(081012)	M57C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-10.000	LREF	5.312
						BREF	5.312
						XREF	2.546
						YREF	.000
						ZREF	.000
						SCALE	.001



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(A)MACH = 0.60

ORIGIN	X-SFB	DELTA Z	RUDDER	REFERENCE INFORMATION	SD. IN.
.500	.000	.136	.000	SREF	6.198
.500	.000	.136	-10.000	LREF	5.313
				BREF	5.313
				X-PRP	2.549
				Y-PRP	.000
				Z-PRP	.000
				SCALE	.001



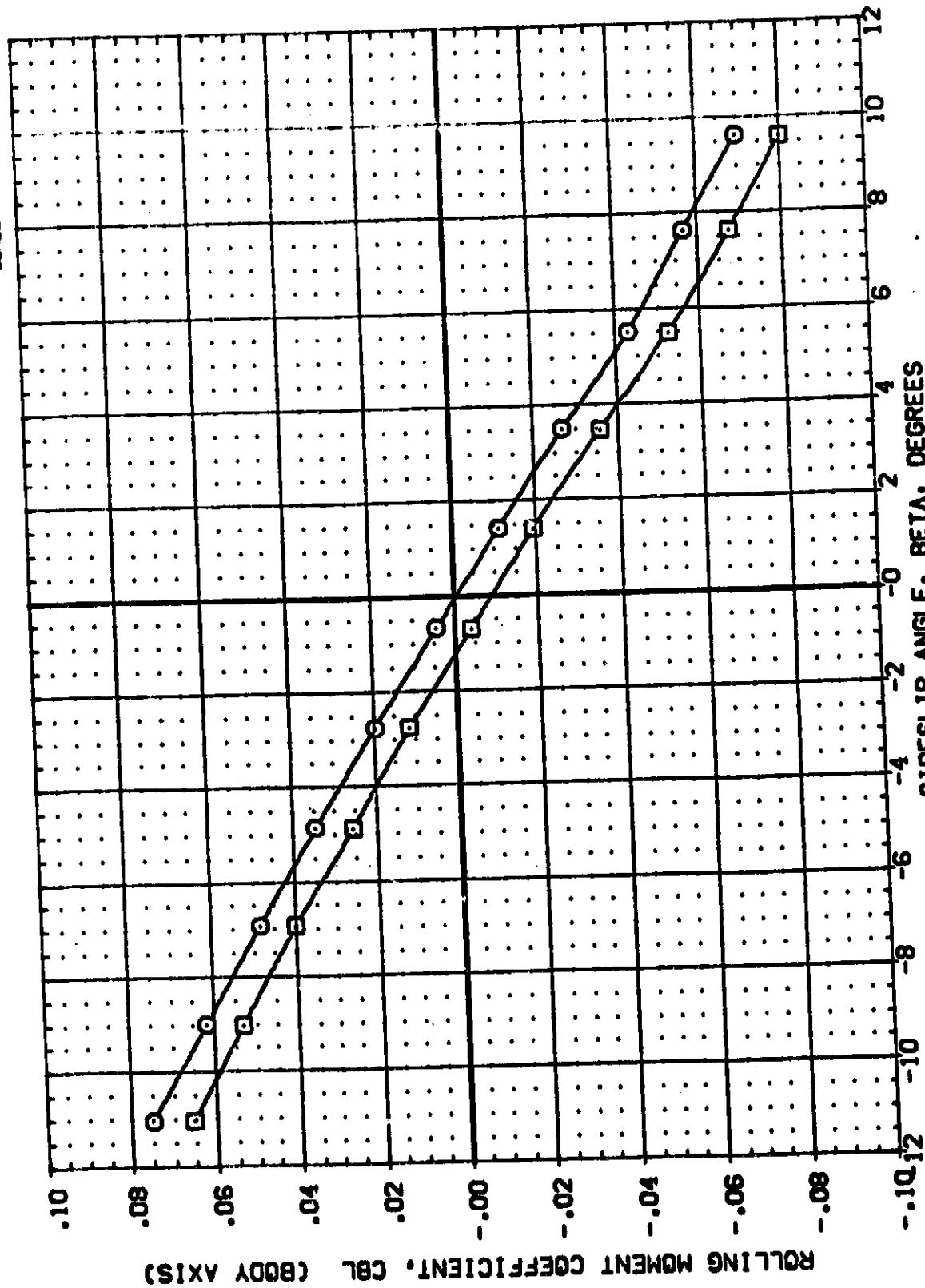
10 12 -10 -8 -6 -4 -2 0 2
SIDESLIP ANGLE, BETA, DEGREES

(8) MACH = 0.90



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(DB1002) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3
(DB1012) MSC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-588 DELTA Z RUDDER REFERENCE INFORMATION
.500 .000 .136 .000 SREF 6.198 50. IN.
.500 .000 .136 -10.000 LREF 5.313 IN.
XMRP 2.549 IN.
YMRP .000 IN.
ZMRP .000 IN.
SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMB. CONFIGURATION DESCRIPTION

(DB1002) MSC 566 (1A31F) MCR 0074 LV 03 19 53

(DB1012) MSC 566 (1A31F) MCR 0074 LV 03 19 53

OSBINC X-998 DELTAZ RUDDER

.500 .000 .000

.500 .000 .000

REFERENCE INFORMATION

SREF 6.198 SQ. IN.

LREF 5.313 IN.

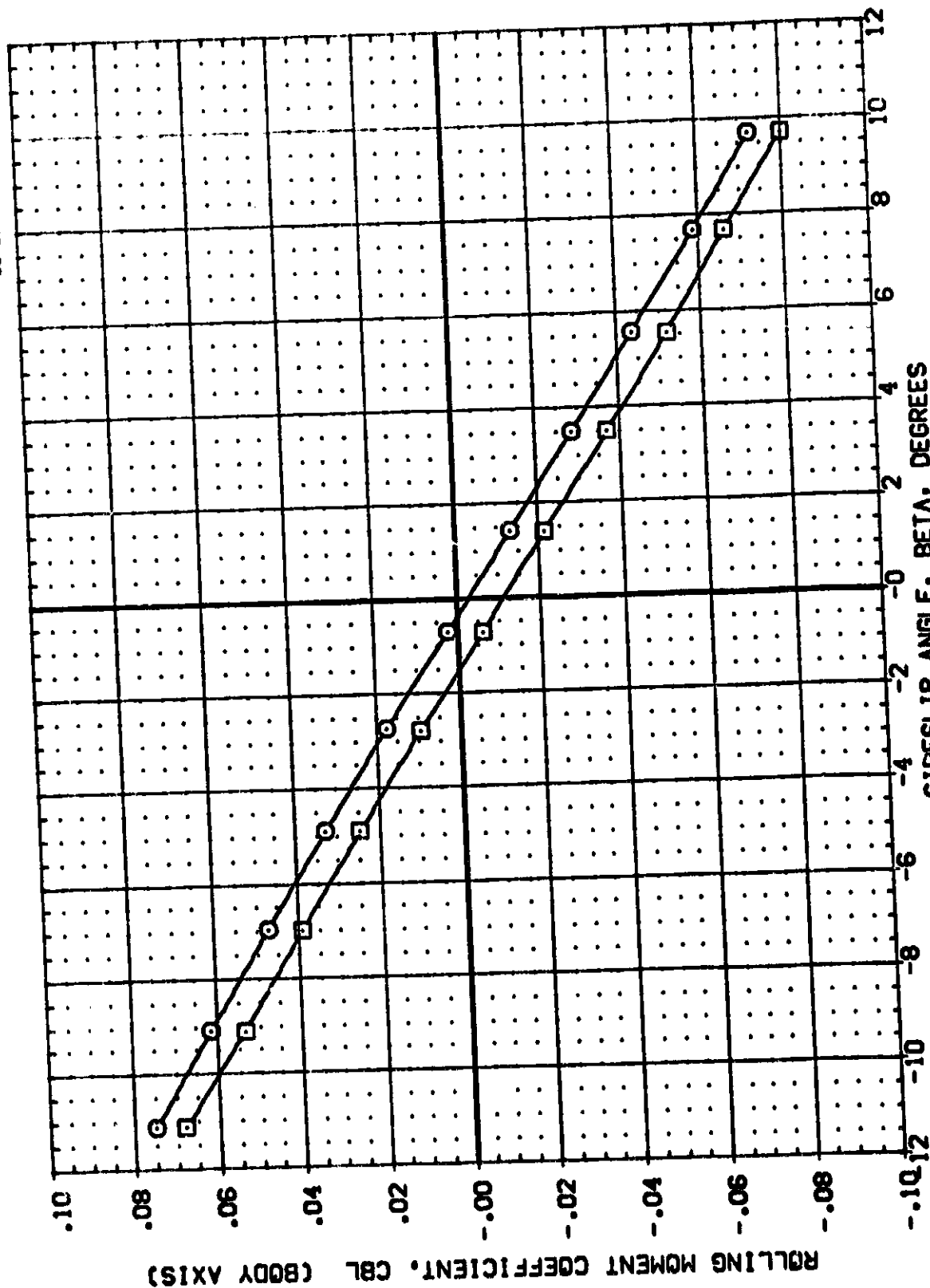
BREF 5.313 IN.

XMRP 2.549 IN.

YMRP .000 IN.

ZMRP .000 IN.

SCALE .004

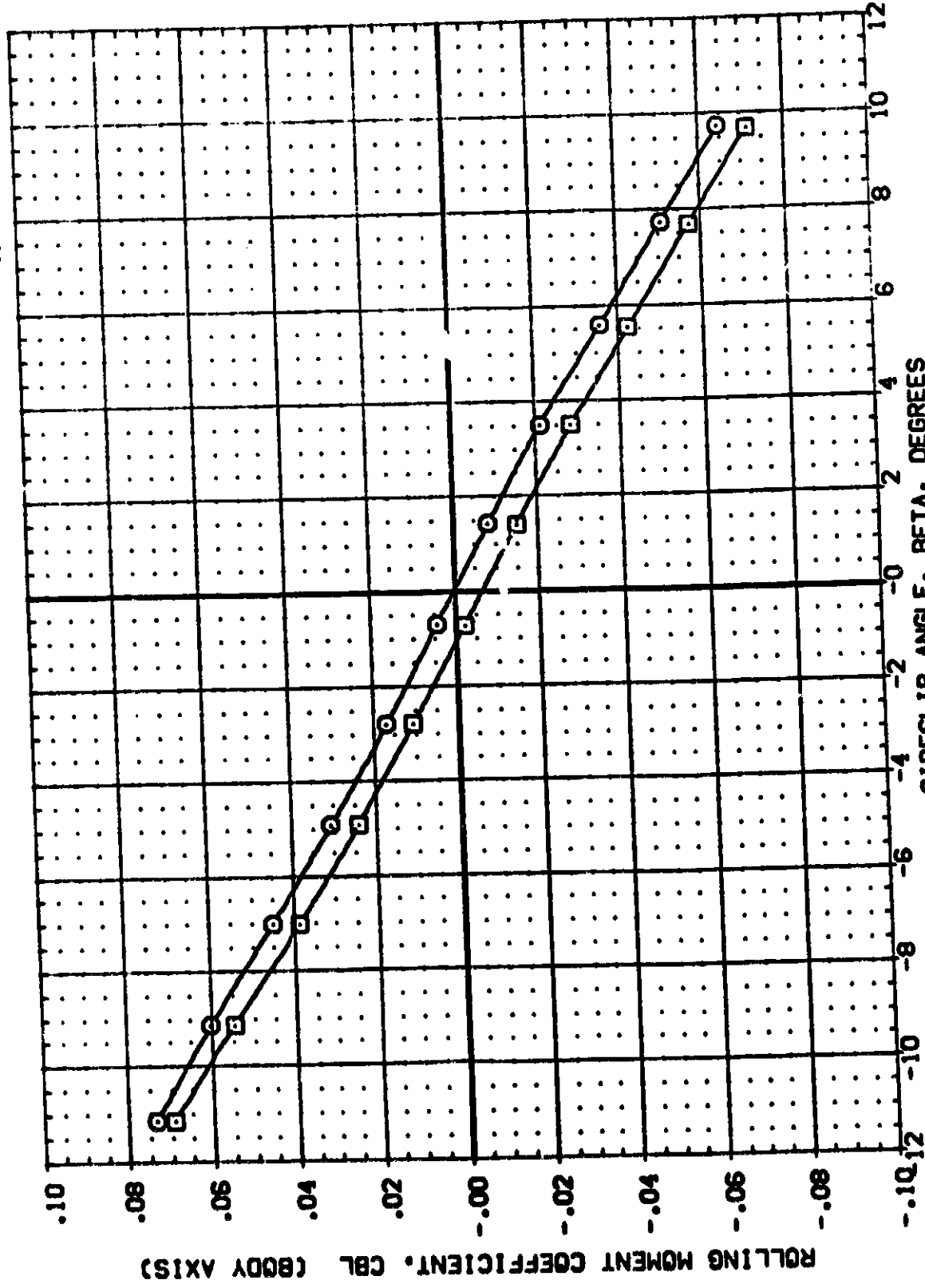


EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(D)MACH = 1.25



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-SRB	DELTA Z	RUDDER	REFERENCE INFORMATION
(081002)	M57C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	.000	SRF 6.198
(081012)	M57C 566 (1A31F) MCR 0074 LV 03 19 S3	.500	.000	.136	-10.000	LREF 5.313
						BREF 5.313
						XMRP 2.549
						YMRP .000
						ZMRP .000
						SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

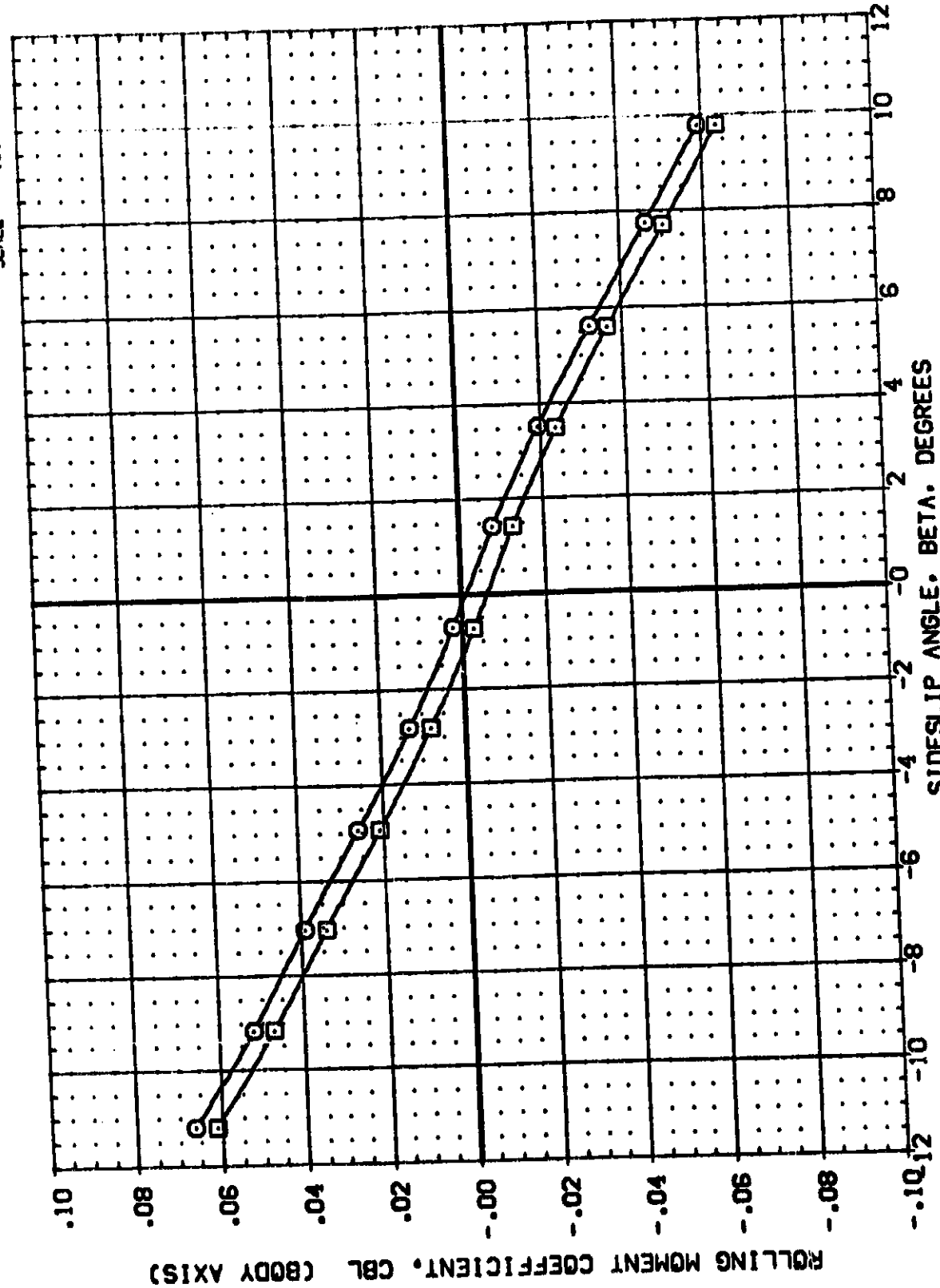
(E)MACH = 1.46

DATA SET SYMBOL: DB1002
 DB1012

CONFIGURATION DESCRIPTION

MSFC 566 (1A31F) MCR 0074 LV 03 19 53
 MSFC 566 (1A31F) MCR 0074 LV 03 19 53

ORIGIN X-SRB DELTA Z RUDDER SC: IN
 .500 .000 .136 .000 IN:
 .500 .000 .136 -10.000 IN:
 REFERENCE INFORMATION
 SREF 6.198 IN:
 LREF 5.313 IN:
 BREF 5.313 IN:
 XMRP 2.549 IN:
 YMRP .000 IN:
 ZMRP .000 IN:
 SCALE .000 IN:



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(F)MACH = 1.96

DATA SET SYMBOL (DB1002) (DB1012)

CONFIGURATION DESCRIPTION MSC 566 (IA31F) MCR 0074 LV 03 19 S3 MSC 566 (IA31F) MCR 0074 LV 03 19 S3

ORBITAL X-SUB DELTA Z RUDDER

REFERENCE INFORMATION

SREF 6.198 SQ. IN.

LREF 5.313 IN.

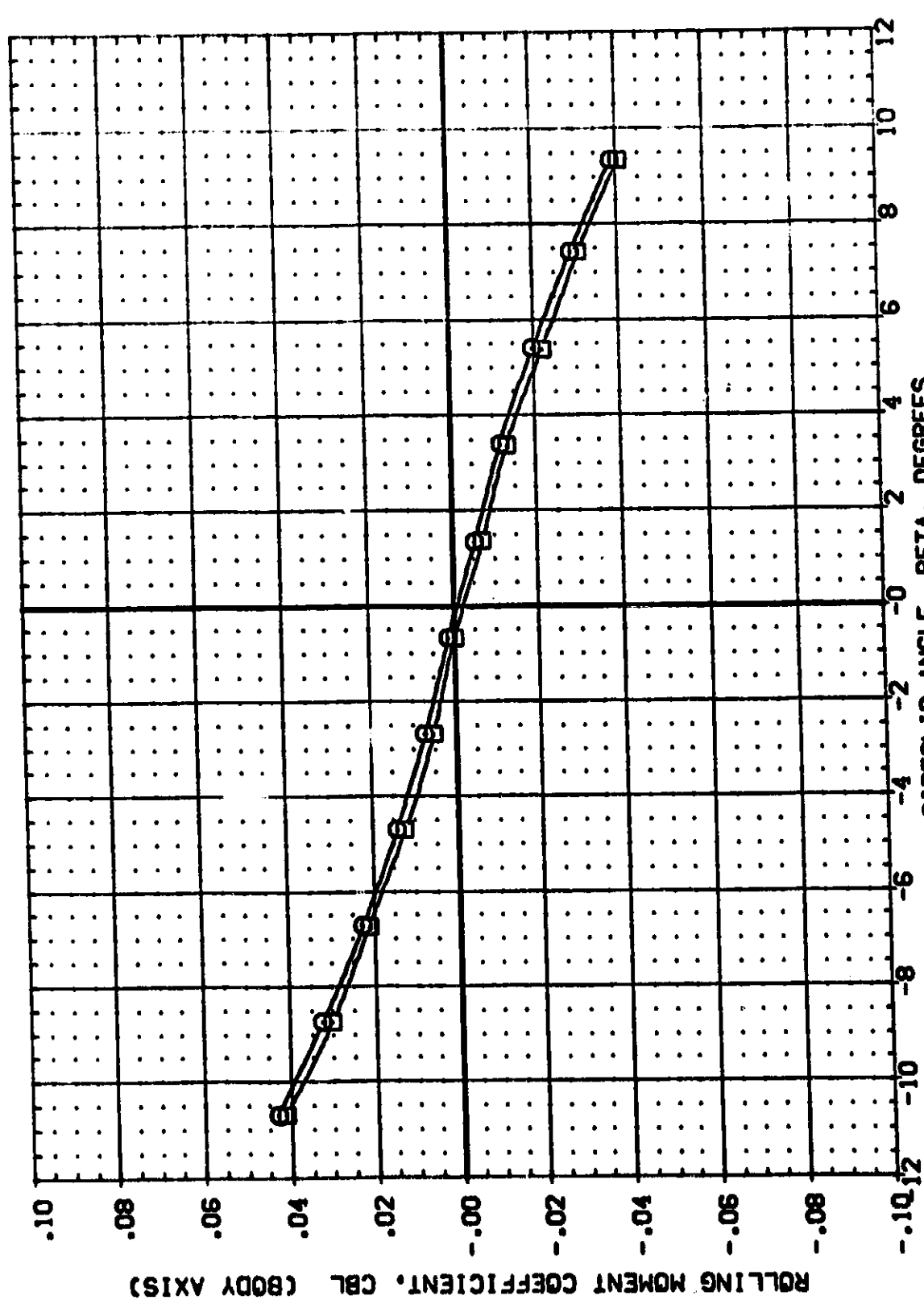
BREF 5.313 IN.

XPRP 2.545 IN.

YPRP .000 IN.

ZPRP .000 IN.

SCALE .004



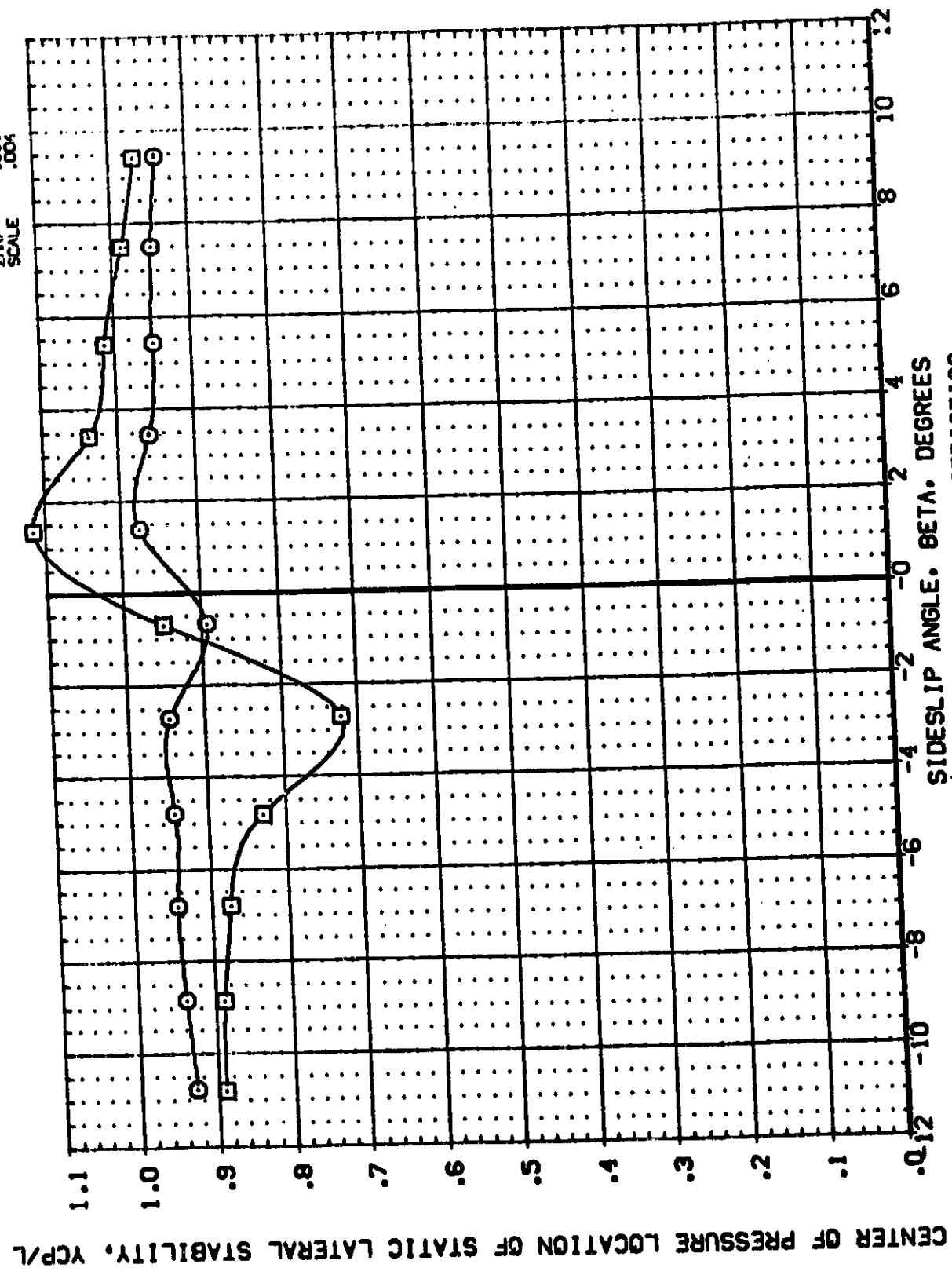
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(G)MACH = 4.96

DATA SET SYMBOL: DB1002
 CONFIGURATION DESCRIPTION: HSTC 566 (1A31F) MOR 0074 LV 03 TS S3
 DB1012 HSTC 566 (1A31F) MOR 0074 LV 03 TS S3

ORIGIN X-SRB DELTA Z RUDDER
 .500 .000 .000
 .500 .000 -10.000

REFERENCE INFORMATION
 SREF 6.198 IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 YMRP 2.549 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .001



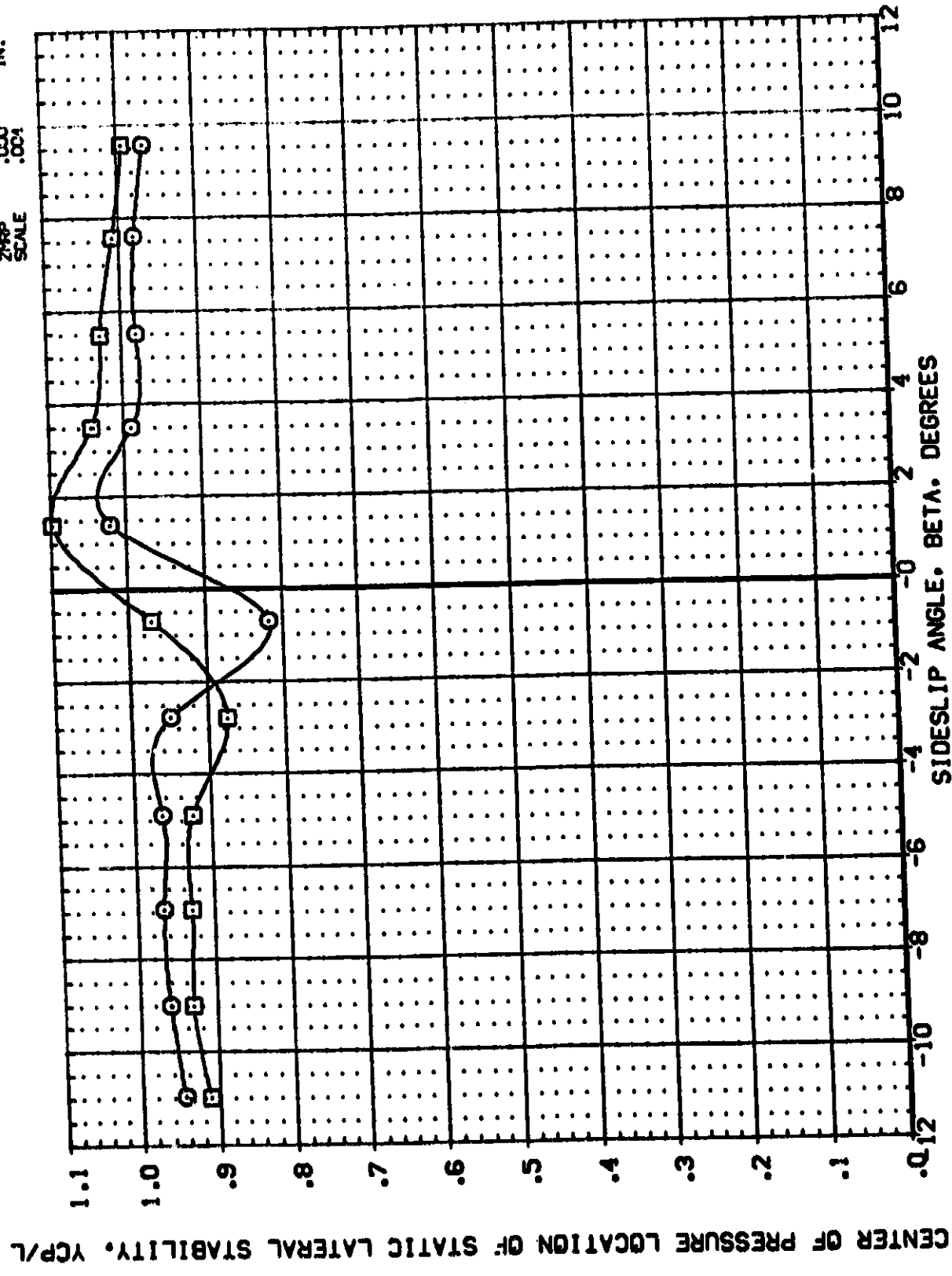
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(A)MACH = 0.60



DATA SET SYMBOL CONFIGURATION DESCRIPTION ORIGIN X-518 DELTA Z RUDDER REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ORIGIN	X-518	DELTA Z	RUDDER	REFERENCE INFORMATION
(DB1002)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	.000	SREF 6.198 IN.
(DB1012)	MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3	.500	.000	.136	-10.000	LREF 5.313 IN.
						BREF 5.313 IN.
						XVRP 2.549 IN.
						YVRP .000 IN.
						ZVRP .000 IN.
						SCALE .004



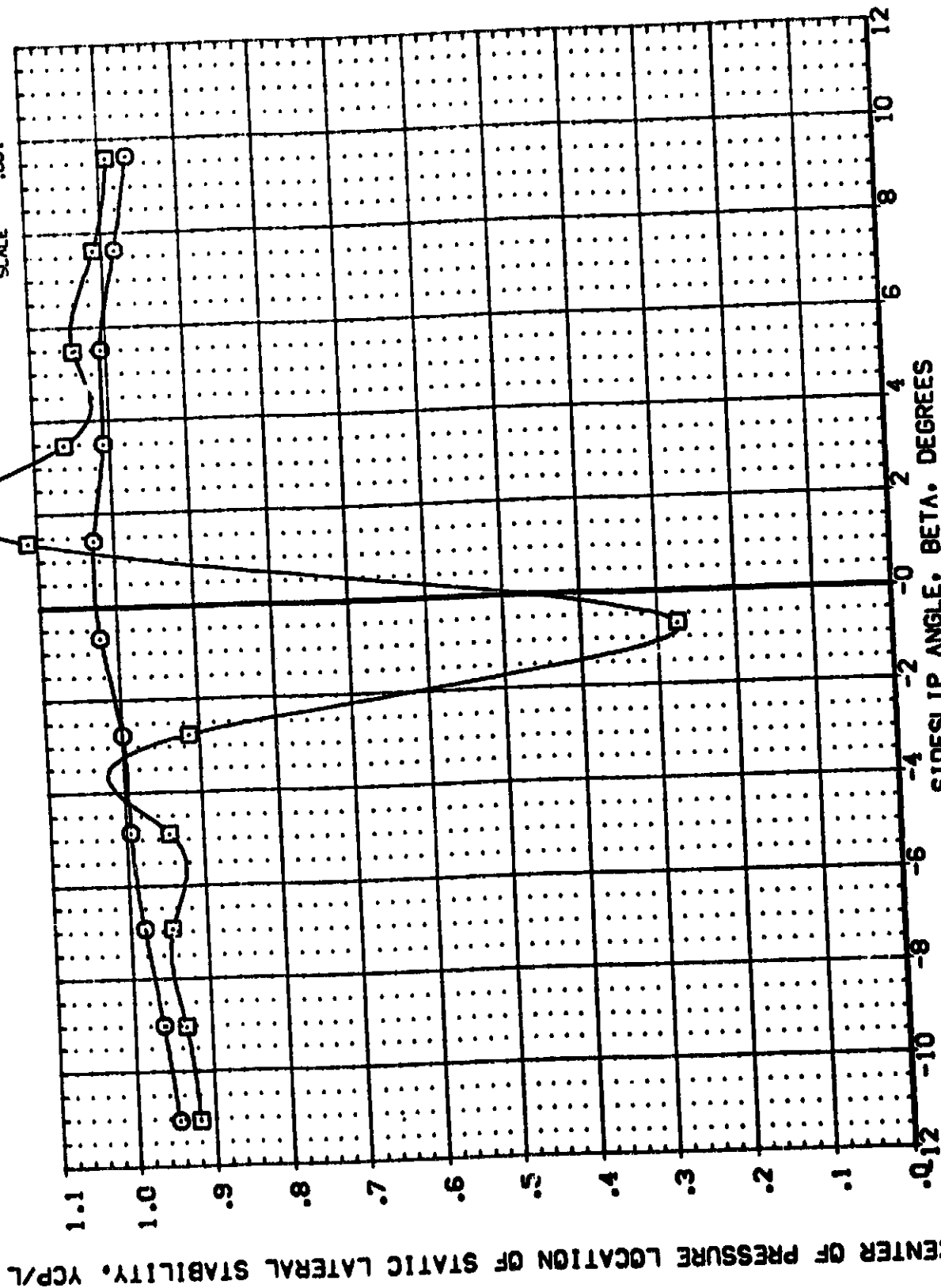
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(RMACH = 0.90

DATA SET SYMB. CONFIGURATION DESCRIPTION
 (081002) MSC 566 (1A31F) MCR 0074 LV 03 TS S3
 (081012) MSC 566 (1A31F) MCR 0074 LV 03 TS S3

ORIGIN X-SRB DELTA Z RUDDER
 .500 .000 .136 .000
 .500 .000 .136 -10.000

REFERENCE INFORMATION
 SREF 6.159 IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XPRP 2.549 IN.
 YPRP .000 IN.
 ZPRP .000 IN.
 SCALE .004



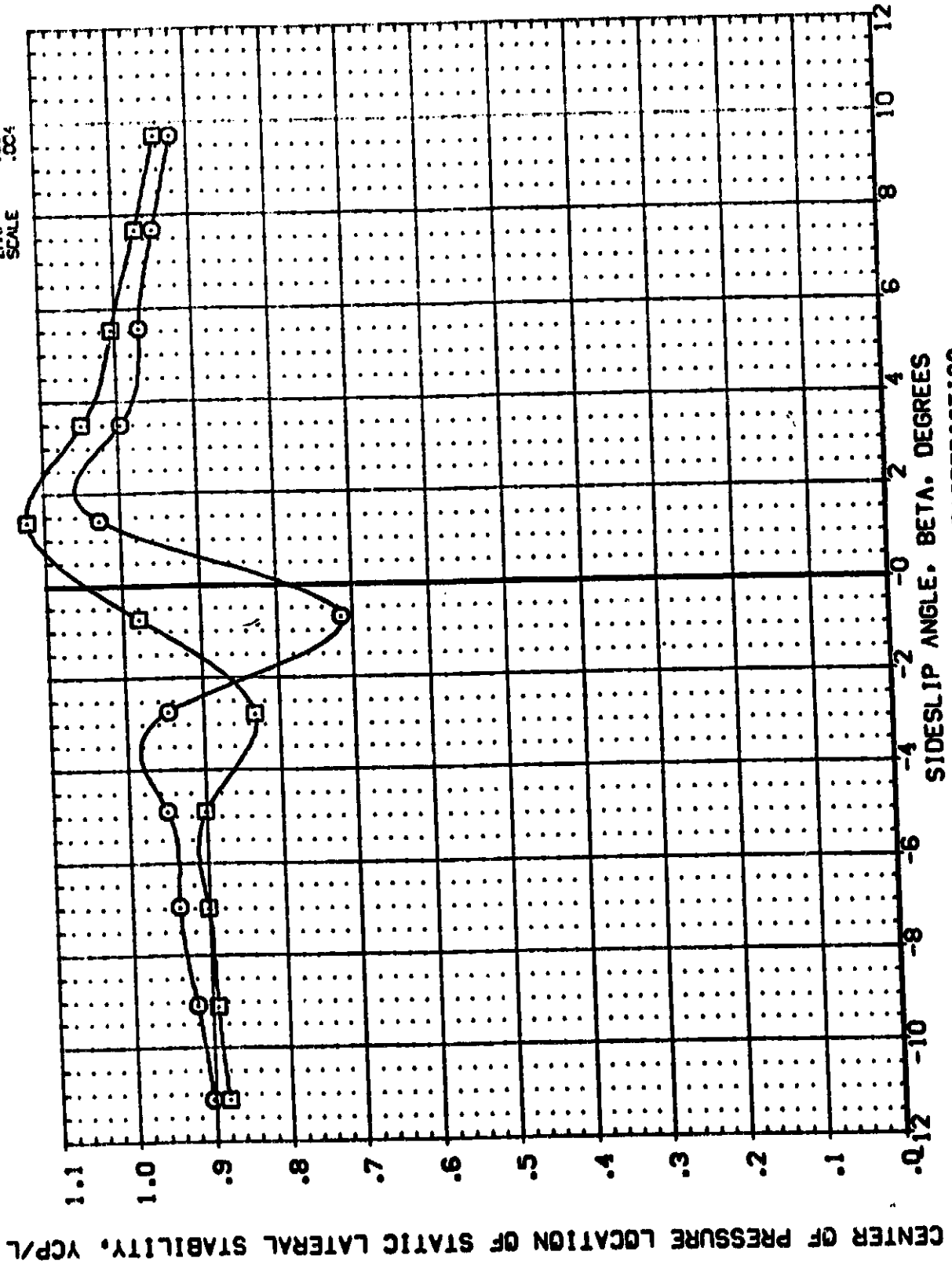
EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(C)MACH = 1.05

DATA SET SYMBOL: (D81012)
 CONFIGURATION DESCRIPTION: MSFC 566 (1A31F) MCR 0074 LV 03 TS S3
 MSFC 566 (1A31F) MCR 0074 LV 03 TS S3

ORBITAL X-908 DELTA Z RUDDER
 .500 .000 .000
 .500 .000 -10.000

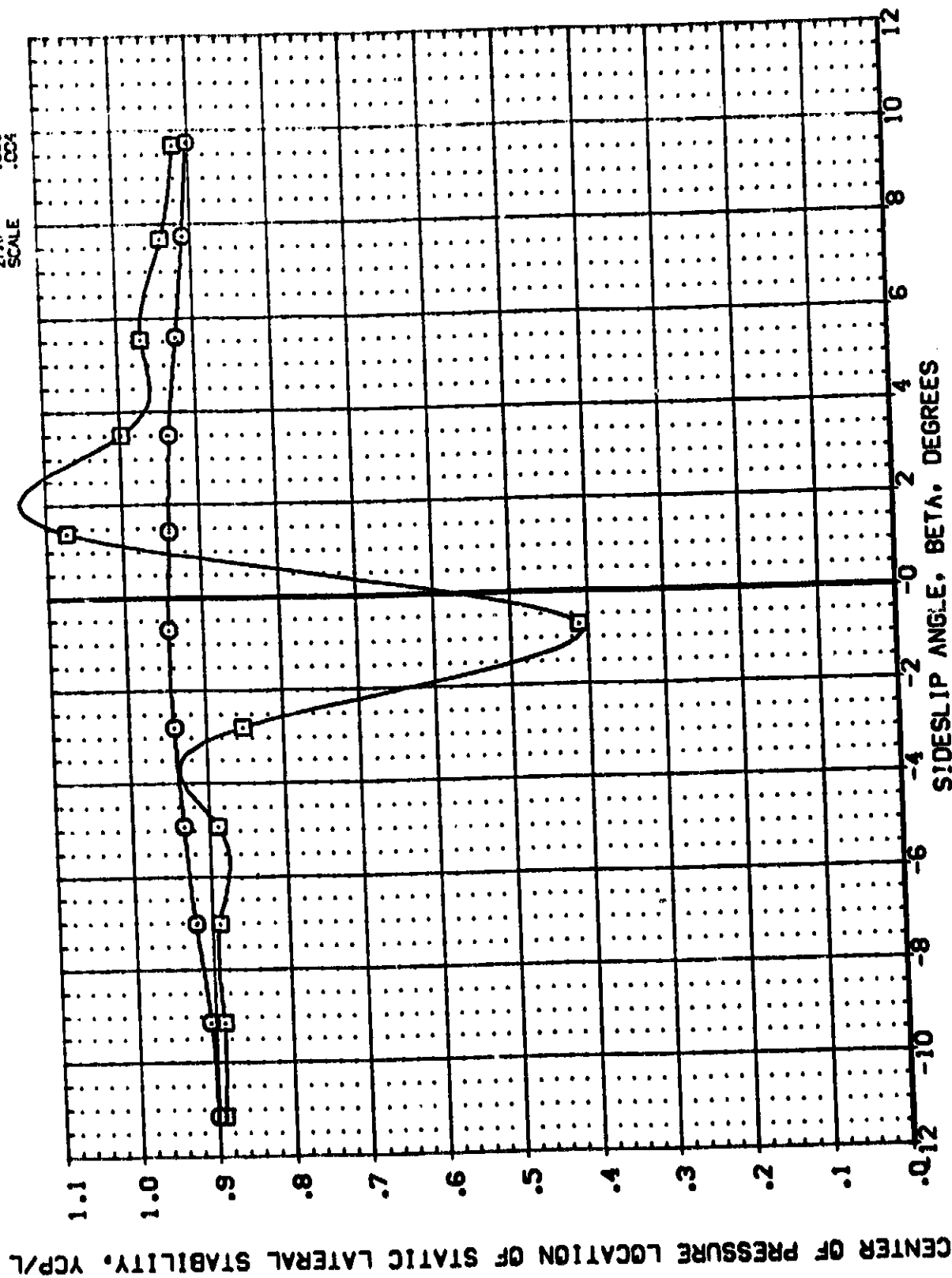
REFERENCE INFORMATION
 SREF 6.198 SQ. IN.
 LREF 5.313 IN.
 BREF 5.313 IN.
 XMRP 2.548 IN.
 YMRP .000 IN.
 ZMRP .000 IN.
 SCALE .004



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(O)MACH = 1.25

ENGINE	X-548	DELIN	NUMBER	STEF	6.198
.500	.000	.136		LIBF	5.313
.500	.000	.136	-10.000	BRF	5.313
				XMP	2.548
				YMP	.000
				ZMP	.000
				SCALE	.000



EFFECT OF RUDDER DEFLECTION ON STABILITY CHARACTERISTICS

(E)MACH = 1.46

DATA SET SYMBOL: (081002)
 (081012)

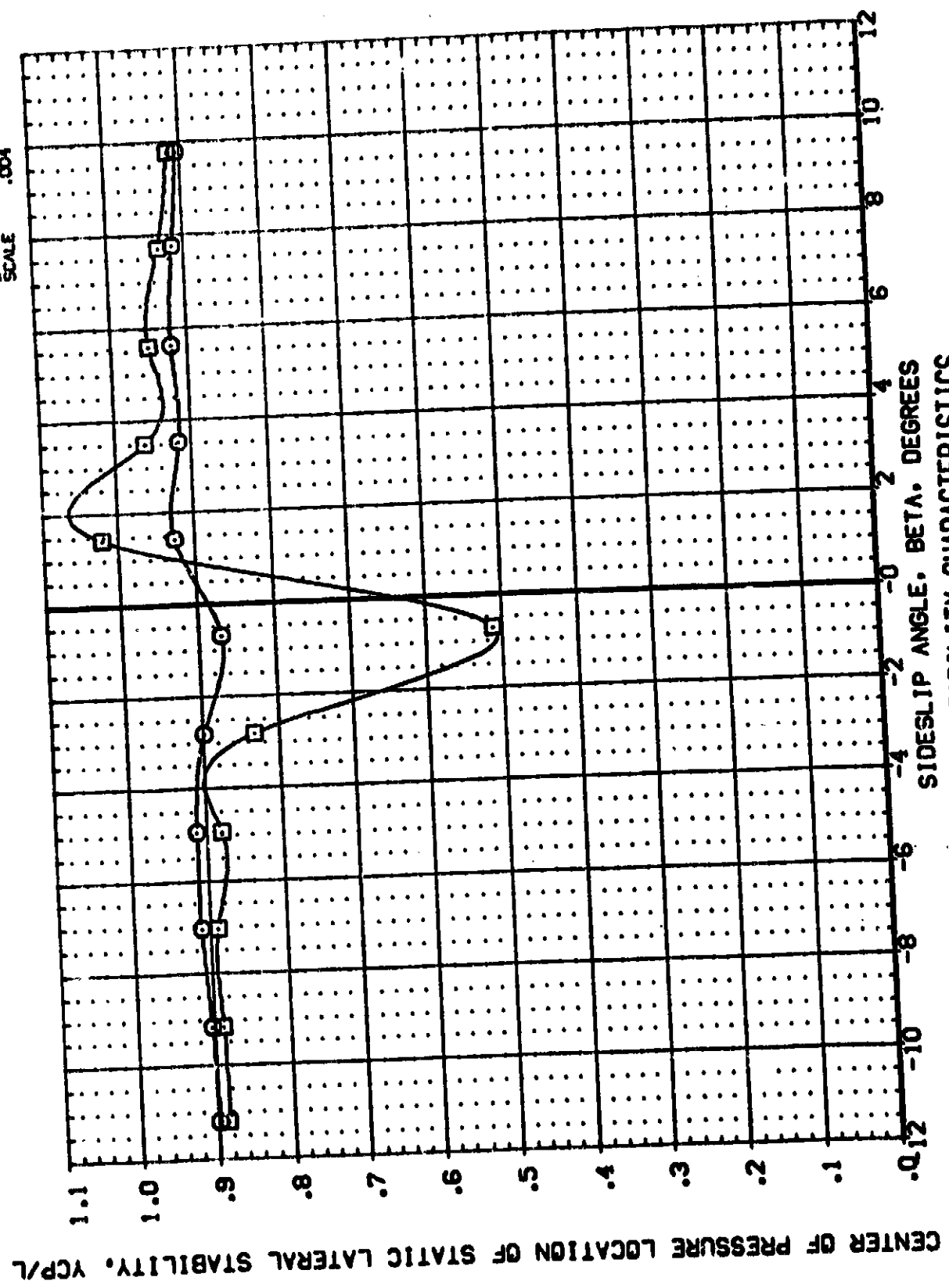
CONFIGURATION DESCRIPTION:
 MSC 566 (1A31F) MCR 0074 LV 03 T9 93
 MSC 566 (1A31F) MCR 0074 LV 03 T9 93

ORIGIN: X=500, Y=500

DELTA Z: .136

RUDDER: .000, .000, -10.000

REFERENCE INFORMATION:
 SREF: 5.159 IN.
 LREF: 5.313 IN.
 BREF: 5.313 IN.
 XMRP: 2.549 IN.
 YMRP: .000 IN.
 ZMRP: .000 IN.
 SCALE: .004

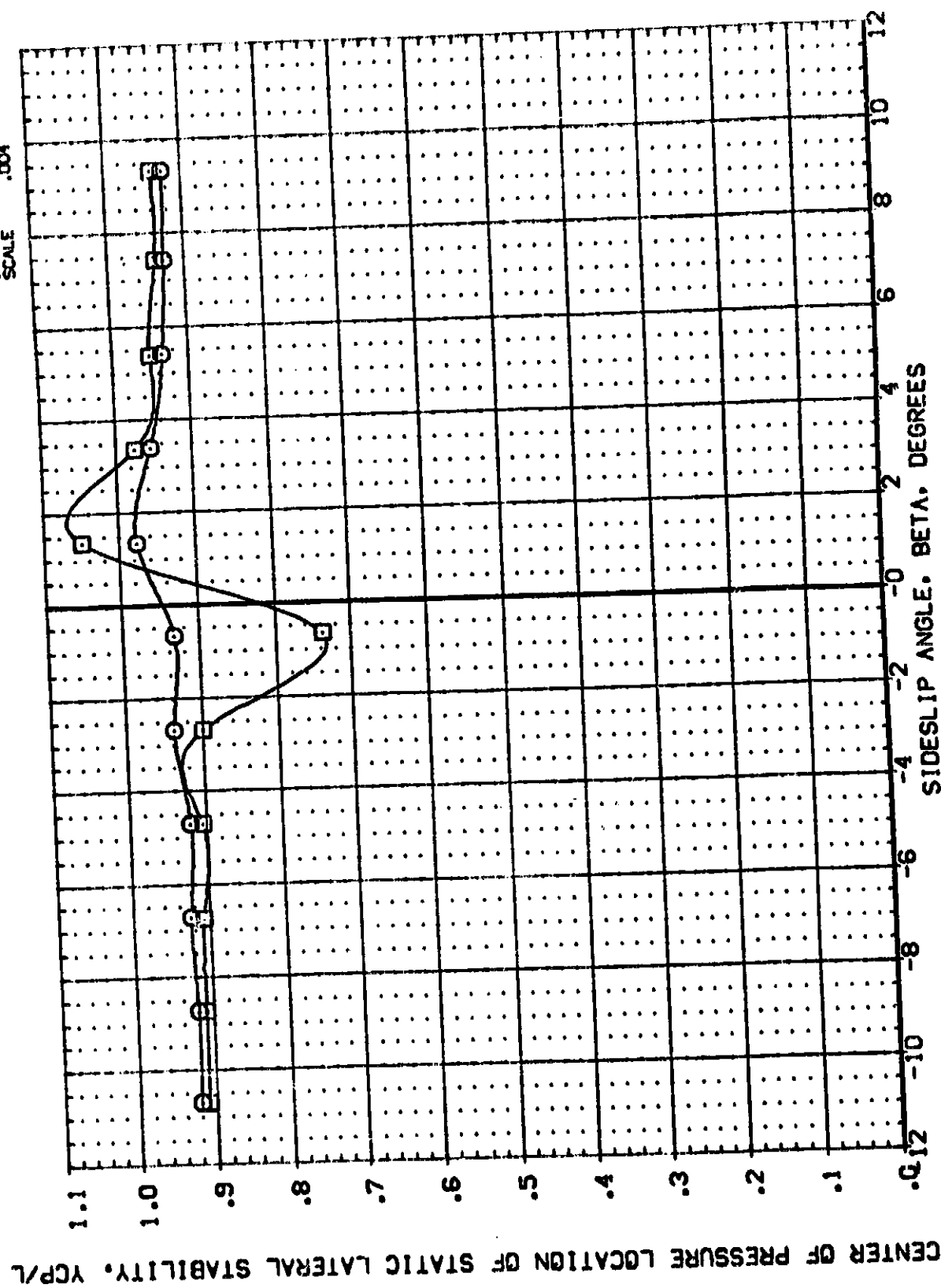


DATA SET SYMBOL: (081002)
 CONFIGURATION DESCRIPTION: MFC 566 (1A31F) MCR 0074 LV 03 T9 S3
 MFC 566 (1A31F) MCR 0074 LV 03 T9 S3

ORBITAL X-908
 .500
 .500

DELTA Z
 .136
 .136

RUDDER
 .000
 -10.000



APPENDIX
TABULATED SOURCE DATA

Tabulations of plotted data are available
from the DMS on request.

DATE 25 AUG 73

TABULATED SOURCE DATA MSC TWT-566

MSFC 566 (1A31F) MCR 5074 LV 08 T9 S3

(R81001) (28 JUN 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SA. IN XREF = 2.5400 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040
 BETA = .000 CONF16 = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SRB = .000 ORBINC = .500

RUN NO. 55/ 0 RVL = 4.95 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	ON	CLM	CY	CYN	CEL	CAF	QSO	CASO	CASS	CASE
.598	-11.120	-69240	.63400	-.02200	.01020	-.00030	.07100	.00900	.04500	.10500	.05300
.598	-9.140	-51390	.18220	-.01900	.00880	-.00140	.06000	.00300	.04500	.10400	.04900
.598	-7.090	-39680	.13370	-.02400	.01190	-.00160	.09300	.00900	.04000	.09800	.04000
.598	-5.050	-29500	.08690	-.02360	.01290	-.00060	.09600	.00900	.04000	.09800	.03700
.598	-2.940	-17590	.03740	-.01640	.00940	-.00030	.09900	.00900	.04000	.09800	.03500
.598	-.890	-.05310	-.01290	-.00770	.00620	.00070	.10100	.00900	.04000	.09700	.03200
.598	1.290	.07120	-.06370	-.00860	.00580	.00100	.09900	.00900	.04000	.09700	.03100
.598	3.290	.19600	-.11130	-.01220	.00810	.00130	.08900	.00900	.04000	.09700	.03000
.598	5.320	.31290	-.15770	-.00900	.00740	.00220	.08500	.00900	.04000	.09700	.02900
.598	7.430	.43160	-.21090	-.00990	.00780	.00260	.07600	.00900	.04000	.09700	.02800
.598	9.380	.54910	-.26990	-.00400	.00650	.00330	.06400	.00900	.04000	.09700	.02800
.598	-.890	-.05080	-.01480	-.01040	.00710	.00030	.06600	.00900	.04000	.09700	.02800
GRADIENT		.09950	-.02340	.00056	-.00021	.00024	-.00154	-.00000	.00014	.00067	-.00012

RUN NO. 56/ 0 RVL = 5.90 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	ON	CLM	CY	CYN	CEL	CAF	QSO	CASO	CASS	CASE
.801	-11.360	-.69370	.26340	-.02320	.01430	.00050	.06800	.01000	.04900	.10800	.05800
.801	-9.320	-.54670	.19970	-.02040	.01090	-.00190	.08200	.01000	.04800	.10200	.05800
.801	-7.240	-.42420	.14280	-.01840	.01020	-.00180	.10600	.01000	.04700	.09800	.04800
.801	-5.160	-.30000	.08800	-.01780	.00820	-.00030	.11000	.01000	.04700	.09800	.04300
.801	-3.010	-.18390	.03820	-.01690	.01100	-.00070	.11400	.00900	.04700	.09800	.04000
.801	-.930	-.05540	-.01810	-.01670	.01010	-.00060	.11800	.00900	.04600	.09400	.03700
.801	1.220	.07740	-.07290	-.01540	.00970	-.00040	.11600	.00900	.04600	.09700	.03400
.801	3.340	.20790	-.12390	-.01310	.00910	.00030	.10700	.00900	.04600	.09700	.03200
.801	5.420	.34240	-.17910	-.00690	.00880	.00130	.10200	.00900	.04600	.09400	.03000
.801	7.560	.48080	-.22930	-.00990	.00800	.00110	.10000	.00900	.04600	.09700	.02800
.801	9.530	.56770	-.27190	-.00740	.00710	.00160	.10200	.00900	.04600	.09600	.02800
.801	-.930	-.05750	-.01710	-.01130	.00790	.00200	.11800	.00900	.04600	.09500	.02700
GRADIENT		.08159	-.02346	.00060	-.00029	.00015	-.00109	-.00000	-.00014	.00029	.00014

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

PAGE 2

(R01001) (28 JUN 73)

NSFC 566 (1A31F) WCR 0074 LV 08 19 53

REFERENCE DATA

SREF = 6.1980 S3. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 EREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 CONFIG = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SRS = .000 ORDRNC = .500

PARAMETRIC DATA

RUN NO. 57/0 RVL = 6.23 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	ON	CLM	CY	CYN	CBL	CAF	OSB	CABO	CASS	CASE
.905	-11.460	-72860	.28800	-.03390	.01910	-.00220	.10000	.01100	.05300	.10900	.06700
.905	-9.390	-57630	.22190	-.03980	.02090	-.00330	.11200	.01100	.05200	.10500	.06100
.905	-7.280	-43770	.16260	-.02970	.01610	-.00260	.12700	.01000	.05100	.09700	.05600
.905	-5.170	-31130	.10250	-.02920	.01630	-.00270	.12900	.01000	.05000	.09700	.05300
.905	-3.040	-17150	.03060	-.02390	.01340	-.00330	.13400	.01000	.04900	.09400	.04700
.905	-.940	-.04410	-.02790	-.01720	.01110	-.00300	.14100	.01000	.04800	.09600	.04300
.905	1.240	.08470	-.08280	-.01190	.01250	-.00270	.13300	.01000	.04900	.09800	.04000
.905	3.350	.21110	-.13080	-.01320	.00910	-.00170	.13700	.01000	.04900	.10200	.03800
.905	5.450	.33410	-.17520	-.01660	.01120	-.00180	.12600	.01000	.04800	.10500	.04500
.905	7.610	.45280	-.22610	-.01120	.00940	-.00180	.12800	.01000	.04900	.11300	.03700
.905	9.630	.57480	-.27510	-.01240	.01110	-.00160	.12300	.01000	.05100	.11900	.03700
.905	-.940	-.04580	-.02660	-.02140	.01290	-.00320	.13800	.01000	.04900	.09500	.04200
.905	.05979	-.02525	-.00140	-.00054	-.00054	.00024	.00004	.00000	.00005	.00122	-.00040

GRADIENT

RUN NO. 58/0 RVL = 6.43 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	ON	CLM	CY	CYN	CBL	CAF	OSB	CABO	CASS	CASE
.999	-11.500	-79710	.34390	-.02720	.01540	-.00180	.17500	.01300	.06500	.13700	.08100
.999	-9.460	-63240	.27100	-.02160	.01300	-.00210	.18800	.01300	.06500	.13400	.07600
.999	-7.320	-47920	.20300	-.02030	.01230	-.00220	.20200	.01300	.06500	.12700	.06500
.999	-5.190	-32660	.13300	-.01540	.01070	-.00180	.21000	.01300	.06400	.12100	.06400
.999	-3.070	-17580	.05590	-.01130	.00810	-.00100	.21300	.01300	.06400	.12100	.05900
.999	-.930	-.02290	-.02920	-.00650	.00480	-.00060	.21600	.01300	.06300	.12300	.05100
.999	1.260	.12610	-.10500	-.00170	.00340	-.00030	.20800	.01300	.06200	.12600	.04900
.999	3.400	.25190	-.15740	.00190	.00260	-.00040	.21500	.01300	.06200	.13200	.04100
.999	5.500	.36420	-.19330	.00590	.00170	-.00040	.20100	.01300	.06100	.13700	.03600
.999	7.690	.48430	-.23650	.00600	.00190	.00020	.20300	.01300	.06200	.14300	.03300
.999	9.670	.59760	-.28640	.00790	.00130	.00060	.19700	.01300	.06200	.14300	.03300
.999	-.930	-.02140	-.02980	-.00360	.00440	-.00040	.21300	.01300	.06400	.12100	.05200
.999	.06628	-.00000	-.00345	.00002	-.00084	.00010	-.00010	.00000	-.00003	.00085	-.00076

GRADIENT

DATE 29 AUG 73
TABULATED SOURCE DATA NSFC TWT-566
NSFC 566 (IA31F) MCR D074 LV 08 T9 S3

IR81001) (28 JUN 73)

PARAMETRIC DATA

BETA = .000 CONF16 = 1.000
DELTA Z = .136 RUDDER = .000
X-SEC = .000 ORBINC = .500

REFERENCE DATA

SA-F = 6.1980 SQ. IN XMRP = 2.5490 IN.
LREF = 5.3130 IN. YMRP = .0000 IN.
BREF = 5.3130 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 59/ 0 RVL = 6.5 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CTN	CEL	CAF	QSO	CASO	CABS	CASE
1.049	-11.600	-7.7900	.33170	-.02350	.01400	-.00170	.21300	.01200	.05800	.14000	.06900
1.049	-9.900	-6.2650	.25980	-.02070	.01280	-.00210	.22000	.01200	.05800	.13500	.05300
1.049	-7.350	-4.7070	.19390	-.01590	.01120	-.00170	.23800	.01200	.05700	.12700	.05700
1.049	-5.180	-3.2060	.12660	-.01400	.00970	-.00150	.24900	.01200	.05700	.11800	.05100
1.049	-3.020	-1.7290	.05520	-.00870	.00680	-.00100	.25100	.01200	.05700	.11600	.04700
1.049	-.890	-.02640	-.01830	-.00340	.00410	-.00050	.25200	.01200	.05700	.11600	.04700
1.049	1.270	.11590	-.09170	-.00160	.00360	.00000	.24700	.01200	.05700	.11600	.04700
1.049	3.410	.24330	-.14730	.00220	.00220	-.00010	.23900	.01200	.05700	.12100	.03200
1.049	5.510	.35660	-.18580	.00680	.00020	.00000	.22900	.01100	.05500	.12800	.02600
1.049	7.710	.47690	-.23000	.00730	.00120	.00060	.22200	.01200	.05600	.13400	.02300
1.049	9.710	.58620	-.27690	.00980	.00030	.00010	.24500	.01200	.05800	.11800	.04300
1.049	-.900	-.02830	-.01800	-.00280	.00350	-.00050	.24500	.01200	.05800	.11800	.04300
1.049	.06484	.00174	-.03174	.00161	-.00269	.00015	-.00191	.00000	.00000	.00000	-.00000

RUN NO. 60/ 0 RVL = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CAF	QSO	CASO	CABS	CASE
1.101	-11.630	-7.7900	.33700	-.02130	.01470	-.00170	.23300	.01100	.05400	.13200	.06500
1.101	-9.920	-6.2570	.25650	-.01990	.01190	-.00140	.24700	.01100	.05500	.12700	.06200
1.101	-7.340	-4.6480	.18850	-.01200	.00980	-.00070	.25900	.01100	.05500	.12100	.05800
1.101	-5.200	-3.2380	.12860	-.00820	.00730	-.00060	.26900	.01100	.05500	.11300	.05100
1.101	-3.020	-1.8440	.06800	-.00230	.00460	-.00030	.27100	.01100	.05500	.11100	.04700
1.101	-.890	-.04640	.00380	-.00080	.00400	.00000	.27200	.01100	.05500	.11100	.04500
1.101	1.270	.09260	-.06790	.00120	.00420	.00010	.27300	.01100	.05400	.10900	.03700
1.101	3.420	.23320	-.13270	.00370	.00370	.00060	.26900	.01100	.05400	.11400	.03300
1.101	5.540	.35380	-.17590	.00350	.00390	.00000	.25900	.01100	.05400	.11900	.03100
1.101	7.730	.47590	-.22590	.00460	.00640	.00000	.25200	.01100	.05300	.11900	.02800
1.101	9.790	.59000	-.27930	.00430	.00760	.00020	.24600	.01100	.05500	.12400	.02200
1.101	-.890	-.04560	.02160	-.00180	.00370	-.00020	.26800	.01200	.05600	.11200	.04900
1.101	.06480	.00137	-.03137	.00286	-.00202	.00012	-.00084	-.00000	-.00019	.00000	-.00000

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

(R81001) (28 JUN 73)

NSFC 566 (IA31F) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SQ. IN XMRP = 2.5460 IN.
 LREF = 5.3130 IN. YMRP = .0000 IN.
 BREF = 5.3130 IN. ZMRP = .0000 IN.
 SCALE = .0040

BETA = .000 CONFID = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SRB = .000 ORDINC = .000

RUN NO. 61/ 0 RVL = 6.60 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CAF	CNSO	CASO	CABS	CASE
1.248	-11.770	-82190	.32530	-.03240	.01490	-.00230	.24970	.01000	.05000	.12300	.07100
1.248	-9.620	-63180	.24370	-.02290	.01020	-.00200	.23500	.01100	.05200	.12100	.06800
1.248	-7.410	-46210	.17100	-.01860	.00820	-.00230	.26200	.01000	.05100	.11600	.06400
1.248	-5.240	-30530	.10450	-.01480	.00720	-.00190	.27700	.01100	.05200	.11100	.05800
1.248	-3.070	-15820	.04230	-.00990	.00580	-.00160	.27700	.01100	.05300	.10800	.05500
1.248	-.870	-.01180	-.01940	-.00880	.00540	-.00180	.28300	.01100	.05300	.10700	.04900
1.248	1.210	.11820	-.07850	-.00570	.00560	-.00110	.28300	.01100	.05300	.10700	.04700
1.248	3.470	.24820	-.13530	-.00530	.00630	-.00190	.27700	.01100	.05600	.11300	.04300
1.248	5.590	.38450	-.19410	-.00480	.00840	-.00190	.27200	.01200	.05800	.11600	.03700
1.248	7.770	.51090	-.25590	-.00130	.00670	-.00150	.26200	.01200	.05700	.12200	.03700
1.248	9.820	.61920	-.29450	.00340	.00420	-.00200	.26200	.01100	.05300	.10900	.05000
1.248	-.890	-.01690	-.01630	-.00870	.00580	-.00160	.28100	.01100	.05300	.10900	-.00110
1.248	GRADIENT	.06223	-.02730	.02078	.00208	.00032	-.00014	.00000	.00000	.00078	-.00011

RUN NO. 40/ 0 RVL = 6.55 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLM	CY	CYN	CSL	CAF	CNSO	CASO	CABS	CASE
1.454	-11.840	-84290	.33570	-.03010	.01490	-.00260	.26900	.00800	.03800	.09700	.06900
1.454	-9.690	-65490	.25410	-.02070	.01090	-.00210	.27400	.00800	.03800	.09500	.05500
1.454	-7.500	-48390	.18030	-.01630	.00900	-.00240	.27800	.00800	.03800	.09300	.05100
1.454	-5.320	-32340	.10930	-.01330	.00970	-.00210	.28700	.00800	.03900	.09100	.04900
1.454	-3.090	-17110	.04570	-.01030	.00840	-.00170	.29500	.00800	.03900	.08900	.04200
1.454	-.900	-.02750	-.01440	-.00950	.00770	-.00180	.29800	.00800	.04000	.08800	.03800
1.454	1.310	.10570	-.06690	-.00940	.00740	-.00190	.29400	.00800	.04100	.09100	.03600
1.454	3.460	.22990	-.11900	-.00730	.00730	-.00110	.29200	.00800	.04200	.09300	.03300
1.454	5.630	.35570	-.17570	-.00620	.00710	-.00190	.29100	.00800	.04100	.09400	.02900
1.454	7.770	.47730	-.22490	.00240	.00620	-.00200	.28700	.00800	.04200	.09600	.02600
1.454	9.820	.59720	-.26840	.00400	.00400	-.00240	.28600	.00900	.04300	.09800	.02300
1.454	-.910	-.02980	-.01400	-.00990	.00690	-.00160	.29600	.00800	.04200	.09000	.03900
1.454	GRADIENT	.06132	-.02501	.00141	-.00278	.00010	-.00059	-.00000	.00018	.00050	-.00133

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

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(R81201) (28 JUN 73)

NSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0020 IN.
 ZREF = 5.3130 IN. ZREF = .0020 IN.
 SCALE = .0040

BETA = .000 CONF16 = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SRB = .000 ORBINC = .900

PARAMETRIC DATA

RUN NO. 27/ 0 RVL = 6.71 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	ALPHA	ON	CLN	CY	CYN	CLB	CAF	ONB	CAB	CAS	CABE
1.962	-11.680	-80160	.31840	-.01990	.01110	-.00200	.30000	.00500	.02600	.06300	.03700
1.962	-9.730	-63680	.24470	-.01810	.00980	-.00200	.29900	.01500	.02600	.06400	.03400
1.962	-7.510	-47720	.17720	-.01360	.00840	-.00220	.29800	.00900	.02600	.06200	.03200
1.962	-5.300	-33040	.11800	-.01200	.00740	-.00230	.29900	.00500	.02600	.06100	.03000
1.962	-3.100	-19620	.06690	-.00920	.00650	-.00220	.30200	.00500	.02600	.06100	.02900
1.962	-.940	-.06670	.01630	-.00770	.00610	-.00210	.30100	.00500	.02600	.06000	.02800
1.962	1.290	.07070	-.03870	-.00590	.00530	-.00380	.30400	.00500	.02700	.06000	.02800
1.962	3.440	.20180	-.09800	-.00330	.00430	-.00180	.30000	.00600	.02800	.06200	.01800
1.962	5.600	.33000	-.15640	-.00110	.00340	-.00160	.30000	.00600	.02800	.06100	.01200
1.962	7.800	.45360	-.20530	-.00180	.00430	-.00160	.30600	.00600	.02900	.06300	.01000
1.962	9.680	.56720	-.25480	-.00000	.00340	-.00210	.29000	.00500	.02800	.06300	.02400
1.962	-.930	-.06370	.01650	-.00620	.00640	-.00210	.29000	.00500	.02800	.06300	.02400
1.962	GRADIENT	.06793	-.02516	.00089	-.00034	.00012	.00151	-.00000	.00018	-.00018	-.00037

WAOH	ALPHA	ON	CLN	CY	CYN	CLB	CAF	ONB	CAB	CAS	CABE
2.990	-11.160	-59570	.23330	-.01750	.00980	-.00250	.27200	.00200	.01300	.03200	.02100
2.990	-9.150	-44510	.16780	-.01140	.00680	-.00180	.26400	.00300	.01400	.03200	.01700
2.990	-7.100	-34860	.14760	-.00990	.00570	-.00150	.25800	.00300	.01500	.03200	.01600
2.990	-5.020	-27930	.10540	-.00750	.00530	-.00160	.25300	.00300	.01500	.03200	.01500
2.990	-2.950	-18200	.06840	-.00590	.00420	-.00090	.25200	.00300	.01400	.03100	.01400
2.990	-.890	-.08070	.04120	-.00460	.00410	-.00120	.25100	.00300	.01500	.03200	.01200
2.990	1.210	-.00290	.01160	-.00390	.00410	-.00060	.25100	.00300	.01500	.03200	.01000
2.990	3.280	.08680	-.02540	-.00250	.00220	-.00060	.24900	.00300	.01500	.03200	.00900
2.990	5.320	.18040	-.05990	.00120	.00220	-.00050	.24500	.00300	.01500	.03200	.00800
2.990	7.400	.28010	-.09790	.00080	.00110	-.00050	.24200	.00300	.01500	.03200	.00700
2.990	9.350	.38610	-.14210	.00050	.00070	-.00050	.23800	.00300	.01500	.03200	.01200
2.990	GRADIENT	-.09120	.04090	-.00420	.00430	-.00060	.23200	.00300	.01500	.03200	-.00082
2.990		.04571	-.01520	.00091	-.00017	-.00010	-.00048	.00000	.00014	.00000	

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

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NSFC 566 (1A31F) MCR DATA LV 03 T9 S3

(RR1001) (28 JUN 73)

REFERENCE DATA

SREF = 6.1980 SQ. IN. XREF = 2.5490 IN.
 LREF = 9.3130 IN. YREF = .0000 IN.
 BREF = 9.3130 IN. ZREF = .0000 IN.
 SCALE = .0060

PARAMETRIC DATA

BETA = .000 CONFIC = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SYS = .000 ORBINC = .500

RUN NO. 17/ 1 RVL = 6.31 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CN	CLM	CY	CYN	CEL	CAF	CNO	CABO	CABS	CASE
3.480	-11.280	-56370	.21690	-.01350	.00750	-.00220	.27500	.00200	.00900	.02300	.01600
3.480	-9.200	-46490	.17920	-.01060	.00670	-.00180	.26600	.00200	.01000	.02300	.01400
3.480	-7.190	-36860	.14220	-.01110	.00640	-.00170	.25700	.00200	.01100	.02400	.01200
3.480	-5.190	-27630	.10670	-.00740	.00420	-.00150	.25000	.00200	.01100	.02400	.01100
3.480	-3.190	-18380	.07320	-.00550	.00360	-.00130	.24700	.00200	.01100	.02400	.01100
3.480	-1.190	-9150	.04890	-.00350	.00340	-.00120	.24400	.00200	.01100	.02400	.01000
3.480	.910	.02260	.02470	-.00290	.00260	-.00080	.24200	.00200	.01100	.02300	.00900
3.480	3.170	.06810	-.01050	.00070	.00150	-.00110	.23800	.00200	.01100	.02200	.00700
3.480	5.330	.15700	-.04560	.00030	.00090	-.00050	.23000	.00200	.01100	.02100	.00600
3.480	7.490	.25650	-.08540	.00030	.00050	-.00050	.22900	.00200	.01100	.02100	.00400
3.480	9.420	.34880	-.12350	.00340	.00050	-.00060	.22700	.00200	.01100	.02100	.00300
3.480	-9.10	-.05810	.04680	-.00410	.00330	-.00110	.24500	.00200	.01100	.02400	.00300
3.480	GRADIENT	.03992	-.01315	.00096	-.00034	.00007	-.00139	.00000	.00000	-.00014	-.00001

RUN NO. 18/ 1 RVL = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	ALPHA	CN	CLM	CY	CYN	CEL	CAF	CNO	CABO	CABS	CASE
4.999	-10.920	-47150	.18490	-.01270	.00660	-.00160	.29300	.00200	.00200	.00800	.00500
4.999	-8.560	-39470	.15980	-.00960	.00590	-.00180	.27500	.00200	.00200	.00800	.00500
4.999	-6.590	-32230	.13160	-.01220	.00620	-.00190	.26200	.00200	.00300	.00900	.00400
4.999	-4.520	-25320	.10890	-.00610	.00430	-.00090	.24800	.00200	.00300	.00900	.00300
4.999	-2.860	-16920	.07770	-.00590	.00370	-.00090	.24700	.00200	.00300	.00800	.00200
4.999	.870	-.10390	.05610	-.00760	.00470	-.00150	.23400	.00200	.00300	.00800	.00200
4.999	1.230	-.04230	.04320	-.00720	.00550	-.00090	.23000	.00200	.00300	.00800	.00100
4.999	3.210	.03810	.01300	.00090	.00110	-.00120	.22500	.00200	.00300	.00800	.00100
4.999	5.240	.11840	-.02490	.00060	.00130	-.00140	.21700	.00200	.00300	.00700	.00100
4.999	7.280	.19900	-.05660	.01490	-.00430	-.00040	.21200	.00200	.00300	.00700	.00000
4.999	9.190	.28320	-.08910	.00530	-.00080	-.00020	.20800	.00200	.00300	.00700	.00000
4.999	-8.70	-.10360	.05790	.00010	.00270	-.00040	.23900	.00200	.00300	.00800	.00000
4.999	GRADIENT	.03487	-.01108	.00058	-.00023	.00007	-.00275	.00000	.00000	-.00010	-.00000

DATE 25 AUG 73

TABULATED SOURCE DATA MSFC TWT-566

(R81532) (28 JUN 73)

MSFC 566 (IASIF) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040
 ALPHA = .000 CONFIG = 1.000
 DELTAZ = .136 RUDDER = .000
 X-STE = .020 ORBINC = .500

RUN NO. 84/ 0 RV/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	CEL	CAF	QSO	CASO	CABS	CABE
.801	-10.790	-.04050	-.03380	.44630	-.19980	.06180	.05970	.01000	.03100	.12700	.06300
.801	-8.850	-.03820	-.03110	.36950	-.16930	.05170	.06870	.01000	.04800	.12400	.05500
.801	-6.810	-.03880	-.02830	.29180	-.13560	.04150	.07400	.01000	.04800	.11900	.05000
.801	-4.790	-.04700	-.02250	.21130	-.09870	.03160	.08700	.01000	.04600	.11500	.04700
.801	-2.710	-.04480	-.01880	.12540	-.05840	.01940	.08600	.01000	.04700	.10800	.03800
.801	-.680	-.03450	-.01940	.02780	-.01150	.00650	.09970	.01000	.04600	.10300	.03500
.801	1.390	-.02980	-.02260	-.07940	.03940	-.00820	.09700	.01000	.04700	.10200	.04000
.801	3.430	-.02250	-.02790	-.16270	.07800	-.02020	.09700	.01000	.04800	.10900	.04000
.801	5.430	-.02080	-.03240	-.25110	.11810	-.03260	.08200	.01000	.05100	.10600	.05000
.801	7.510	-.02840	-.03610	-.32900	.15410	-.04310	.09700	.01000	.05300	.10900	.05100
.801	9.440	-.00190	-.04130	-.39930	.18350	-.05350	.08400	.01000	.05300	.10200	.03600
.801	-.690	-.03490	-.02020	.02640	-.01140	.00550	.09700	.01000	.04800	.10200	.03600
	GRADIENT	.02311	-.02067	-.04639	.02190	-.02639	.00102	.00210	.00120	-.00117	.00058

RUN NO. 83/ 0 RV/L = 5.91 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	CEL	CAF	QSO	CASO	CABS	CABE
.795	-10.930	-.03590	-.02210	.47180	-.21410	.06190	.07370	.01000	.05300	.12600	.06300
.795	-8.960	-.03290	-.02530	.39540	-.18400	.05230	.08000	.01000	.05300	.12400	.05800
.795	-6.880	-.04890	-.02770	.30950	-.14740	.04180	.09400	.01000	.04800	.11700	.05300
.795	-4.840	-.04820	-.02720	.22590	-.10740	.03150	.10400	.01000	.04700	.11200	.04700
.795	-2.740	-.05430	-.01690	.12680	-.06090	.01900	.11600	.01000	.04800	.10600	.04400
.795	-.700	-.05070	-.01790	.03560	-.01530	.00680	.11000	.01000	.04700	.10700	.04600
.795	1.400	-.04780	-.02050	-.07420	.03760	-.02820	.11000	.01000	.04900	.10200	.05100
.795	3.460	-.03580	-.02790	-.16880	.08230	-.02110	.10800	.01000	.05000	.10900	.05700
.795	5.480	-.03480	-.02970	-.26040	.12660	-.03340	.10700	.01000	.05000	.10400	.05100
.795	7.580	-.02890	-.03060	-.34780	.16680	-.04480	.10900	.01000	.05400	.10400	.05800
.795	9.540	-.03180	-.02630	-.42060	.19520	-.05260	.10100	.01000	.05400	.10200	.04200
.795	-.700	-.05080	-.01820	.03280	-.01440	.00560	.10000	.01000	.04800	.10200	.04200
	GRADIENT	.00151	-.02014	-.04754	.02304	-.03637	.00063	.00200	.00019	-.00130	.00048

DATE 25 AUG 75

TABULATED SOURCE DATA MSFC TMT-566

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(R81002) (28 JUN 75)

MSFC 556 (IA31F) MCR 0074 LV 08 T9 S3

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0020 IN.
 EREF = 5.3130 IN. ZREF = .0020 IN.
 SCALE = .0740

ALPHA = .0003 CONFIG = 1.000
 DELTAZ = .136 RUDDER = .000
 X-STR = .000 ORDINC = .000

PARAMETRIC DATA

RUN NO. 82/ 0 RVL = 6.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CAF	CBO	CABO	CABS	CASE
.897	-10.980	-.0080	-.0140	.4980	-.2280	.0680	.0920	.0120	.0570	.1310	.7660
.897	-9.00	-.0440	-.0240	.4190	-.2010	.0560	.0770	.0110	.0590	.1250	.6640
.897	-6.910	-.0370	-.0300	.3280	-.1590	.0430	.1160	.0100	.0520	.1200	.6510
.897	-4.890	-.0360	-.0320	.2360	-.1140	.0310	.1230	.0090	.0500	.1130	.5560
.897	-2.780	-.0410	-.0290	.1320	-.0620	.0170	.1310	.0080	.0500	.1040	.0510
.897	-.710	-.0360	-.0320	.0270	-.0190	.0030	.1330	.0070	.0510	.0990	.0480
.897	1.400	-.0280	-.0350	-.0780	.0420	-.0140	.1350	.0060	.0510	.0970	.0510
.897	3.480	-.0240	-.0380	-.1820	.0930	-.0210	.1320	.0050	.0520	.0920	.0590
.897	5.510	-.0110	-.0430	-.2720	.1360	-.0390	.1290	.0040	.0550	.0840	.0670
.897	7.610	-.0040	-.0420	-.3650	.1830	-.0480	.1260	.0030	.0580	.0790	.0680
.897	9.580	-.0150	-.0310	-.4470	.2170	-.0610	.1260	.0020	.0600	.0740	.0720
.897	GRADIENT	-.0310	-.0320	.0260	-.0280	.0210	.1330	.0010	.0600	.0690	.0480
.897		-.0210	-.0280	-.0500	.0240	-.0160	.0210	.0000	.0610	-.0120	.0600

RUN NO. 81/ 0 RVL = 6.48 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CAF	CBO	CABO	CABS	CASE
.999	-11.010	-.0540	-.0340	.5190	-.2510	.0750	.1680	.0140	.0670	.1560	.0710
.999	-9.020	-.0390	-.0110	.4220	-.2110	.0620	.1700	.0140	.0680	.1530	.0710
.999	-6.910	-.0230	-.0230	.3270	-.1700	.0480	.1920	.0130	.0640	.1480	.0650
.999	-4.870	-.0120	-.0300	.2430	-.1270	.0360	.2140	.0130	.0630	.1400	.0610
.999	-2.760	-.0090	-.0330	.1370	-.0750	.0210	.2110	.0130	.0630	.1310	.0570
.999	-.710	-.0080	-.0320	.0290	-.0180	.0040	.2190	.0130	.0630	.1270	.0530
.999	1.470	-.0260	-.0350	-.0810	.0470	-.0110	.2270	.0130	.0630	.1170	.0550
.999	3.470	-.0220	-.0350	-.1840	.1020	-.0270	.2160	.0130	.0650	.1200	.0650
.999	5.490	-.0160	-.0330	-.2790	.1520	-.0430	.2250	.0130	.0680	.1180	.0640
.999	7.620	-.0060	-.0230	-.3710	.1970	-.0570	.2180	.0140	.0680	.1220	.0680
.999	9.560	-.0110	-.0170	-.4630	.2330	-.0690	.2100	.0140	.0690	.1190	.0720
.999	GRADIENT	-.0260	-.0320	.0310	-.0140	.0370	.2180	.0130	.0630	.1230	.0530
.999		-.0210	-.0260	-.0310	.0270	-.0070	.0210	-.0020	.0630	-.00259	.0620

DATE 25 AUG 75

TABULATED SOURCE DATA MSFC TAF-566

MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

ALPHA = .020 CONF16 = 1.000
DELTA Z = .135 RUSSER = .000
X-SEB = .000 ORBINC = .000

REFERENCE DATA

SRF = 6.1980 SQ. IN XREF = 2.5490 IN.
LREF = 5.3130 IN. YREF = .0000 IN.
BREF = 5.3130 IN. ZREF = .0000 IN.
SCALE = .0040

RUN NO. 80/ 0 RVL = 6.55 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	ON	QJM	CY	CYN	CEL	CAF	CBO	CABO	CABS	CABE
1.090	-11.050	-.03690	-.01290	.50900	-.23770	.07510	.20400	.01200	.03920	.14900	.05900
1.090	-9.020	-.02950	-.01640	.41180	-.19900	.06190	.21300	.01200	.05920	.14300	.05900
1.090	-6.990	-.01230	-.02690	.31780	-.15980	.04890	.22700	.01200	.05700	.13500	.05100
1.090	-4.870	-.02690	-.02950	.23060	-.11890	.03490	.23600	.01100	.05500	.13200	.05100
1.090	-2.770	-.03700	-.02740	.13190	-.06870	.01970	.24500	.01100	.05500	.12400	.04800
1.090	-.690	-.03700	-.02660	.02800	-.01520	.00440	.24700	.01100	.05500	.11800	.04400
1.090	1.410	-.00120	-.02930	-.07890	.04290	-.01120	.25100	.01100	.05600	.11400	.05100
1.090	3.480	.00960	-.03160	-.17770	.09410	-.02680	.25400	.01100	.05600	.11100	.05100
1.090	5.510	.00960	-.03360	-.27390	.14460	-.04290	.24800	.01200	.05900	.11400	.05900
1.090	7.640	-.00020	-.02410	-.36640	.18490	-.05660	.24900	.01300	.06100	.11400	.06200
1.090	9.620	-.00980	-.02000	-.45740	.22180	-.06960	.23800	.01300	.06200	.11500	.06200
1.090	-.700	-.02840	-.02450	.03010	-.01610	.00380	.24800	.01100	.05600	.11800	.06400
1.090	GRADIENT	.02147	-.02201	-.04919	.02575	-.00735	.00201	-.02200	.00014	-.00249	-.00000

RUN NO. 79/ 0 RVL = 6.65 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	ON	QJM	CY	CYN	CEL	CAF	CBO	CABO	CABS	CABE
1.099	-11.080	-.04190	-.01170	.49880	-.22330	.07420	.22500	.01200	.06120	.14400	.06600
1.099	-9.030	-.03900	-.01170	.39870	-.18470	.06120	.23300	.01200	.06120	.14300	.06400
1.099	-6.940	-.03760	-.00990	.31090	-.15080	.04770	.24200	.01200	.05900	.14100	.06100
1.099	-4.860	-.03950	-.00690	.22240	-.11190	.03330	.25000	.01200	.05800	.13600	.05800
1.099	-2.780	-.03940	-.00130	.12620	-.06400	.01870	.25800	.01200	.05800	.13200	.05400
1.099	-.690	-.03950	.00160	.02240	-.01130	.00330	.26300	.01200	.05800	.12500	.05100
1.099	1.410	-.03960	-.00110	-.06270	.04410	-.01290	.26700	.01200	.05900	.11800	.05300
1.099	3.470	-.02800	-.00480	-.17780	.09260	-.02780	.26200	.01200	.06200	.11800	.06600
1.099	5.530	-.02230	-.01000	-.27260	.13860	-.04400	.25800	.01300	.06400	.11900	.06700
1.099	7.640	-.01590	-.01230	-.36090	.17570	-.05890	.25300	.01300	.06400	.11800	.07100
1.099	9.630	-.01580	-.01130	-.45410	.21190	-.07140	.25300	.01200	.06400	.12400	.07100
1.099	-.700	-.03960	.00190	.02430	-.01190	.00290	.26200	.01200	.06300	.12400	.07100
1.099	GRADIENT	.00128	.00016	-.04832	.02475	-.00734	.00158	-.00000	.00024	-.00220	.00024

TABULATED SOURCE DATA NSFC TWT-566

(R81002) (28 JUN 73)

NSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SQ. IN. XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0020 IN.
 DREF = 5.3130 IN. ZREF = .0020 IN.
 SCALE = .0040

ALPHA = .000 CONFIG = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SUB = .000 ORDRNC = .500

RUN NO. 78/ 0 RV/L = 6.69 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CN	CLM	CY	CYN	CLB	CAF	CBO	CABO	CABS	CABE
1.245	-11.150	-.03740	-.02160	.49860	-.21080	.07500	.25670	.01200	.05600	.12900	.06500
1.245	-9.100	-.03290	-.02090	.39930	-.17590	.06150	.26200	.01100	.05600	.12900	.06500
1.245	-6.980	-.03170	-.01860	.30380	-.13950	.04720	.26700	.01100	.05500	.12700	.05800
1.245	-4.900	-.03240	-.01380	.27980	-.09900	.03270	.26900	.01100	.05300	.12300	.05600
1.245	-2.760	-.03020	-.01240	.11150	-.05200	.01760	.27500	.01100	.05300	.11900	.05400
1.245	-.700	-.02820	-.01300	.01360	-.00320	.00220	.27500	.01100	.05500	.11400	.05200
1.245	1.420	-.02460	-.01290	-.35500	.04660	-.01300	.28200	.01100	.05500	.10900	.05600
1.245	3.500	-.01680	-.01590	-.17800	.09220	-.02860	.28100	.01100	.05600	.10700	.06300
1.245	5.560	-.00710	-.02250	-.26980	.13200	-.04350	.28400	.01200	.05600	.10700	.06300
1.245	7.690	-.00480	-.02520	-.36560	.17100	-.05880	.28700	.01200	.05900	.10900	.06700
1.245	9.700	-.00360	-.02620	-.45770	.20200	-.07200	.27800	.01100	.05900	.11400	.07200
1.245	-.700	-.02940	-.01140	.01550	-.00340	.00160	.27500	.01100	.05900	.11400	.07200
1.245	GRADIENT	.00156	-.00022	-.04636	.02295	-.00732	.02148	-.00000	.00000	-.00181	.00076

RUN NO. 39/ 0 RV/L = 6.57 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CN	CLM	CY	CYN	CLB	CAF	CBO	CABO	CABS	CABE
1.460	-11.170	-.03820	-.03640	.51490	-.21690	.07360	.26000	.01800	.04000	.09800	.04600
1.460	-9.140	-.03360	-.03490	.40940	-.17450	.06020	.26800	.02800	.04000	.09800	.04200
1.460	-7.000	-.02900	-.02980	.30820	-.13630	.04500	.29100	.02800	.03900	.09800	.03900
1.460	-4.920	-.02490	-.02690	.21310	-.09670	.03060	.29300	.02800	.03900	.09500	.03700
1.460	-2.800	-.02190	-.02600	.12250	-.05660	.01680	.29600	.02800	.03900	.09100	.03700
1.460	-.710	-.02110	-.02760	.03270	-.01520	.00440	.30100	.02800	.03900	.08900	.03900
1.460	1.410	.02230	-.02690	-.03390	.02480	-.00800	.30100	.02800	.03900	.08700	.04100
1.460	3.500	.02810	-.02890	-.13930	.06350	-.02110	.29800	.02800	.04100	.08500	.04100
1.460	5.600	.03180	-.03180	-.23130	.10250	-.03580	.30000	.02800	.04100	.08200	.04200
1.460	7.740	.01910	-.03810	-.32750	.14110	-.05000	.30300	.02800	.04300	.08100	.04400
1.460	9.720	.02380	-.04010	-.42560	.17980	-.06460	.29900	.02800	.04300	.09200	.03700
1.460	-.710	.02230	-.02745	.03330	-.01570	.00440	.29900	.02800	.03900	.09200	.03700
1.460	GRADIENT	.00156	-.00026	-.04186	.01909	-.00610	.02071	-.00000	.00000	-.00114	.00038

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

PAGE 11

NSFC 566 (1A31F) MCR 0074 LV 03 19 53

(R01002) (26 JUN 73)

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 CONF16 = 1 000
 DELTAZ = .136 RUDDER = .000
 X-SSE = .000 ORBINC = .500

RUN NO. 28/ 0 RVL = 6.78 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CEL	CAF	QBO	CBO	CBS	CBE
1.996	-11.229	-.02240	-.01800	.51440	-.21920	.06530	.30870	.00200	.02700	.06300	.03000
1.996	-9.170	-.02110	-.01140	.40340	-.17080	.05200	.31400	.00200	.02700	.06300	.02800
1.996	-7.040	-.01740	-.00780	.30510	-.13190	.03920	.34870	-.00200	-.02700	.06300	.02400
1.996	-4.940	-.00630	.00040	.20690	-.08990	.02380	.34070	-.00100	-.02700	.06300	.02300
1.996	-2.820	-.00670	.00080	.11480	-.04800	.01290	.30400	.00000	.02700	.06400	.02300
1.996	-.710	-.00320	.00440	.02870	-.01120	.00200	.30900	.00000	.02800	.06200	.02200
1.996	1.420	-.02820	-.00050	-.09790	.02570	-.00800	.31900	.00000	.02700	.06300	.02300
1.996	3.530	-.02470	-.00310	-.14340	.06290	-.01900	.31700	.00000	.02700	.06300	.02300
1.996	5.620	-.01560	-.01210	-.23980	.10980	-.03220	.32000	.00000	.02800	.05800	.02300
1.996	7.780	-.00360	-.02070	-.34030	.14800	-.04620	.31800	.00000	.02900	.05700	.02500
1.996	9.790	-.00090	-.02310	-.43810	.18690	-.05920	.31300	.00000	.03100	.05400	.02700
1.996	-.720	-.04010	.00910	.02740	-.00990	.00180	.29700	.00000	.02600	.06200	.02900
		.00055	-.00053	-.04117	.01783	-.00325	-.00146	.00057	.00005	-.00003	-.00005

RUN NO. 15/ 0 RVL = 4.06 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CEL	CAF	QBO	CBO	CBS	CBE
2.990	-10.840	-.07140	.02950	.43190	-.18310	.09020	.28100	.00000	.01800	.02900	.01800
2.990	-8.870	-.06780	.02960	.34000	-.14430	.03920	.25600	.00000	.01700	.03000	.01600
2.990	-6.810	-.07310	.03680	.25440	-.10710	.02910	.24600	.00000	.01700	.03100	.01400
2.990	-4.770	-.07830	.04220	.17920	-.07370	.01840	.23000	.00000	.01600	.03200	.01200
2.990	-2.720	-.07440	.04020	.09980	-.04210	.00990	.25100	.00000	.01500	.03400	.01100
2.990	-.680	-.07900	.03560	.02640	-.01030	.00180	.29000	.00000	.01500	.03300	.01200
2.990	1.380	-.07130	.03610	-.04690	.02270	-.00570	.25100	.00000	.01500	.03100	.01100
2.990	3.400	-.07440	.03930	-.12080	.06520	-.01410	.25400	.00000	.01500	.03000	.01200
2.990	5.470	-.06890	.03890	-.19640	.08910	-.02400	.25800	.00000	.01600	.02800	.01400
2.990	7.500	-.06060	.03080	-.27870	.12270	-.03460	.26100	.00000	.01700	.02600	.01600
2.990	9.430	-.05510	.02460	-.36370	.15990	-.04460	.26300	.00000	.01700	.02500	.01100
2.990	-.700	-.06840	.03500	.02990	-.01000	.00190	.25100	.00000	.01500	.03200	.01200
		.00053	-.00048	-.00811	.01578	-.00392	.00010	-.00000	-.00010	-.00024	-.00010

DATE 23 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

(681002) (26 JUN 73)

NSFC 566 (1A31F) MCR 0074 LV 03 19 53

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SQ. IN.
LREF = 5.3130 IN.
SREF = 5.3130 IN.
SCALE = .0040

XREF = 2.5490 IN.
YREF = .0000 IN.
ZREF = .0000 IN.

ALPHA = .000 CONF16 = 1.000
DELTA Z = .136 RUDDER = .000
X-SIB = .000 ORBINC = .500

RUN NO. 14/ 0 RV/L = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CBO	CAS	CAB
3.480	-10.920	-.08210	.04290	.41670	-.17710	.04790	.25800	.00000	.01400	.02300	.01300
3.480	-8.910	-.07960	.04060	.33180	-.14130	.03740	.25300	.00200	.01300	.02300	.01200
3.480	-6.860	-.08360	.04540	.24880	-.10570	.02660	.25700	.00200	.01300	.02400	.01100
3.480	-4.790	-.08460	.04840	.16970	-.07190	.01680	.24500	.00200	.01200	.02500	.00900
3.480	-2.730	-.08360	.04680	.09780	-.04210	.00890	.24300	.00200	.01100	.02500	.00800
3.480	-.700	-.07730	.04270	.02690	-.01030	.00110	.24200	.00200	.01100	.02300	.00800
3.480	1.370	-.07800	.04290	-.04460	.02140	-.01500	.24300	.00200	.01100	.02300	.00900
3.480	3.420	-.07870	.04560	-.11810	.05350	-.01320	.24600	.00200	.01200	.02200	.00800
3.480	5.460	-.07800	.04670	-.18930	.08270	-.02230	.25100	.00200	.01300	.02200	.00800
3.480	7.500	-.07550	.03870	-.27320	.11960	-.03240	.25800	.00200	.01300	.02200	.00800
3.480	9.520	-.06640	.03570	-.35560	.15490	-.04280	.25900	.00200	.01200	.02500	.00800
3.480	-.700	-.07730	.04310	.02860	-.01090	.00380	.24100	.00200	.01200	.02500	.00800
3.480	-.000	-.00000	.04310	-.03499	.01532	-.00358	.02000	-.00000	-.00000	-.00000	.00000

GRADIENT

RUN NO. 13/ 0 RV/L = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CBO	CAS	CAB
4.959	-10.700	-.10430	.06780	.36380	-.18000	.04310	.26700	.00000	.01400	.01600	.00400
4.959	-8.760	-.10130	.06180	.29000	-.12770	.03240	.25800	.00100	.01400	.01700	.00400
4.959	-6.790	-.09490	.05720	.21830	-.09700	.02230	.24900	.00100	.01400	.01700	.00300
4.959	-4.710	-.08860	.05880	.15060	-.06640	.01430	.24400	.00000	.01400	.01600	.00200
4.959	-2.700	-.09570	.05660	.08480	-.03680	.00720	.23700	.00000	.01400	.01600	.00200
4.959	-.680	-.09240	.05390	.02120	-.00960	.00130	.23300	.00000	.01400	.01500	.00200
4.959	1.350	-.08870	.05500	-.04420	.02270	-.00530	.23400	.00000	.01400	.01500	.00200
4.959	3.390	-.09310	.05840	-.10780	.05120	-.01170	.23900	.00000	.01400	.01700	.00300
4.959	5.390	-.08620	.05470	-.17360	.07880	-.01970	.24800	.00000	.01400	.01700	.00300
4.959	7.420	-.08710	.05580	-.24520	.10990	-.02890	.25200	.00000	.01400	.01600	.00300
4.959	9.320	-.08390	.05720	-.31690	.14110	-.03880	.25900	.00000	.01400	.01600	.00200
4.959	-.680	-.08440	.05330	.02320	-.00680	.00130	.23300	.00000	.01400	.01600	.00200
4.959	-.000	-.00000	-.00012	-.03189	.01462	-.00319	-.00000	-.00000	-.00000	-.00000	-.00000

GRADIENT

DATE 25 AUG 73

TABULATED SOURCE DATA WSC TWT-366

WSE 566 (1431F) WCR 0074 LV 03 T9 S3

(081003) (28 JUN 73)

PAGE 13

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.3490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 CONTIG = 1.000
 DELTA2 = .136 RUDER = .000
 X-SRB = .000 ORSINC = -.500

RUN NO. 51/ 0 RVAL = 4.92 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLN	CY	CYN	CBL	CAF	CNO	CAD	CAS	CAB
.596	-11.130	-66390	.25710	-.02820	.01390	-.00030	.07100	.00900	.04500	.11000	.05300
.596	-9.140	-54650	.20900	-.02320	.01130	-.00120	.07700	.00800	.04500	.10800	.05100
.596	-7.100	-43370	.15630	-.02420	.01380	-.00160	.08200	.00700	.04500	.10600	.04200
.596	-5.040	-31810	.10360	-.02100	.01210	-.00220	.08800	.00600	.04400	.10400	.03700
.596	-2.990	-20010	.05660	-.01780	.01040	-.00290	.09200	.00500	.04400	.10200	.03400
.596	-.920	-08620	.00770	-.01740	.00840	-.00310	.09400	.00400	.04300	.10000	.03100
.596	1.270	.03650	-.04170	-.01580	.00560	.00290	.09600	.00300	.04200	.09800	.02800
.596	3.270	.15370	-.06490	-.01510	.00300	.00100	.09800	.00200	.04100	.09600	.02500
.596	5.370	.27030	-.13320	-.01330	.00980	.00220	.07500	.00100	.04000	.09400	.02200
.596	7.410	.39190	-.18630	-.01150	.00860	.00210	.06700	.00000	.03900	.09200	.01900
.596	9.350	.50680	-.23940	-.00970	.00790	.00210	.06000	.00000	.03800	.09000	.01600
.596	-.970	-.08920	.01880	-.01330	.00890	.00270	.05200	.00000	.03700	.08800	.01300
.596	.05714	-.02279	-.02279	.00248	-.00221	.00316	.00258	.00000	-.03600	.08600	-.01000

RUN NO. 52/ 0 RVAL = 6.23 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	ON	CLN	CY	CYN	CBL	CAF	CNO	CAD	CAS	CAB
.901	-11.480	-.76410	.31400	-.03540	.01980	-.00210	.10800	.01100	.05400	.11100	.06900
.901	-9.410	-.61930	.24970	-.03420	.01740	-.00270	.11200	.01100	.05300	.10700	.06300
.901	-7.310	-.48090	.18950	-.03370	.01790	-.00320	.12300	.01100	.05200	.10500	.05800
.901	-5.210	-.34440	.12520	-.02780	.01620	-.00190	.12800	.01000	.05100	.10300	.05500
.901	-3.060	-.21430	.05670	-.02650	.01490	-.00310	.13200	.01000	.05100	.10100	.04800
.901	-.990	-.07480	-.00680	-.02360	.01470	-.00290	.13400	.01000	.05000	.09900	.04500
.901	1.220	.07170	-.06670	-.01990	.01370	-.00240	.13600	.01000	.04900	.09700	.04100
.901	3.320	.17900	-.10440	-.01960	.01300	-.00230	.12800	.01000	.04800	.09500	.03800
.901	5.430	.29690	-.14790	-.01740	.01360	-.00280	.12000	.01000	.04700	.09300	.03400
.901	7.590	.42220	-.20120	-.01480	.01120	-.00370	.11400	.01000	.04600	.09100	.03000
.901	9.960	.53590	-.25090	-.00690	.00770	.00070	.11400	.01000	.04500	.08900	.02600
.901	-.990	-.07990	-.02270	-.01980	.01280	-.00260	.13900	.01000	.04400	.08700	.02200
.901	.06169	-.02590	-.02590	.00115	-.00031	.00314	-.00246	.00000	-.00308	.08100	-.00117

GRADIENT

REFERENCE DATA

SEEF =	6.1987 SQ. IN.	WGE =	2.5891 IN.
LEEF =	5.3135 IN.	WGF =	.0760 IN.
BEEF =	5.3137 IN.	ZWZ =	.0000 IN.
SCALE =	.0765		

PARALLEL DATA

BETA	=	.000	CONFIG	=	1.000
DELTA Z	=	.136	RUDER	=	.000
X-STEP	=	.000	CRSFNC	=	-1.500

95% CONFIDENCE INTERVAL = -5.93/ 5.93

ALPHA	CN	CLM	CY	CYN	CEL	CAF	CQDQ	CADO	CADS	CASE
-1.685	-83575	36410	-102390	51400	-50100	21700	51200	-55700	14000	17200
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
3.540	-56957	29270	-50760	51280	-50110	22800	51200	-55700	13500	16500
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
-7.395	52975	22330	-101730	51170	-50140	24300	51200	-55700	12900	15700
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
-5.220	-36730	13520	-11490	50970	-50160	24300	51200	-55700	12000	14800
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
-9.055	-21045	10490	-101810	50660	-50280	24500	51200	-55700	11000	14200
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
-9.50	-56735	50900	-102490	50480	-50480	24200	51200	-55700	11000	14300
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
1.250	57745	-56630	-10230	50120	-50210	23500	51200	-55700	12000	14300
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
3.385	21550	-12620	-10155	50280	-50200	24200	51200	-55700	12000	14300
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
5.515	33900	-16380	-101540	50110	-50200	22800	51200	-55700	13400	15300
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
7.690	45140	-21300	-101720	50030	-50200	21300	51200	-55700	13900	15300
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
9.690	56150	-25960	-101760	50050	-50280	21000	51200	-55700	14200	15200
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
-9.920	-56240	50310	-101490	50540	-50200	24800	51200	-55700	14800	15200
1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549	1.549
GRADIENT	56625	-53282	-10146	-50257	-50214	-502175	-50214	-50261	14800	15200

4.00 PERIODIC INTERVAL = 5.00 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CEL	CAF	QAD	CABO	CABS	CASE
1.249	-1.810	-8.9980	3.5310	-0.5110	0.01370	-0.0130	-2.4800	0.01000	0.60000	0.12000	0.07100
1.249	-9.670	-6.6760	2.7490	-0.52480	0.01150	-0.0140	-2.5100	0.01000	0.51000	0.12000	0.06900
1.249	-5.0390	-5.0390	2.0210	-0.01980	0.00930	-0.0170	-2.5900	0.01000	0.01000	0.11800	0.06200
1.249	-7.480	-7.480	1.9390	-0.01430	0.00700	-0.0160	-2.6600	0.01000	0.05000	0.11500	0.05900
1.249	-5.280	-3.4900	1.2490	-0.01260	0.00710	-0.0200	-2.7100	0.01000	0.05400	0.11300	0.05900
1.249	-3.090	-2.0240	0.7700	-0.01140	0.00740	-0.0200	-2.7300	0.01000	0.05400	0.11200	0.05500
1.249	-0.910	-0.5960	0.0150	-0.00970	0.00750	-0.0190	-2.7300	0.01000	0.05500	0.11200	0.05400
1.249	1.280	1.6030	-0.5310	-0.00970	0.00740	-0.0190	-2.6900	0.01000	0.05600	0.11700	0.05100
1.249	3.440	2.710	-1.1460	-0.00800	0.00680	-0.0170	-2.6400	0.01000	0.05500	0.11700	0.05100
1.249	5.560	3.4180	-1.6800	-0.00500	0.00600	-0.0140	-2.6200	0.01000	0.05600	0.11900	0.03700
1.249	7.790	4.7580	-2.3140	-0.00200	0.00500	-0.0120	-2.5400	0.01000	0.05500	0.12000	0.03200
1.249	9.790	5.8060	-2.6880	-0.0010	0.00560	-0.0120	-2.4500	0.01000	0.05300	0.11200	0.05300
1.249	-0.950	-0.5970	0.0140	-0.00950	0.00560	-0.0170	-2.7400	0.01000	0.05300	0.11200	0.05300
1.249	-0.950	-0.5970	-0.0290	-0.0070	0.00505	-0.0002	-0.00028	-0.00000	0.00000	0.00000	-0.00000

DATE 25 AUG 73

TABULATED SOURCE DATA WSCC TWT-565

WSCC 566 (131F) WCF 0074 LV 03 19 53

(R81003) (28 JUN 73)

PARAMETRIC DATA

REFERENCE DATA

WREF = 6.1980 50. IN WREF = 2.5490 IN.
LREF = 5.3130 IN. WREF = .0020 IN.
SREF = 5.3130 IN. WREF = .0020 IN.
SCALE = .0040

BETA = .000 CONFID = 1.000
DELTA Z = .000 LOSSER = .000
X-SEB = .000 QDSINC = -.500

RUN NO. 37/ 0 RVL = 6.52 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CDO	CADO	CASS	CASE
1.436	-11.840	-68520	36930	-03080	01620	-00190	26500	00800	03600	01000	06200
1.436	-9.720	-70210	28820	-02570	01420	-00200	27000	00800	03600	00900	05700
1.436	-7.560	-53080	21450	-02210	01340	-00200	27500	00800	03600	00400	05400
1.436	-5.370	-36780	14410	-01680	01090	-00220	28000	00800	03600	00000	04800
1.436	-3.110	-21470	07830	-01420	00970	-00220	28500	00800	03600	00100	04300
1.436	-0.930	-07070	00790	-01190	00850	-00230	28800	00800	03600	00100	03800
1.436	1.280	06380	-03490	-00850	00450	-00190	28200	00800	03600	00200	03200
1.436	3.430	18870	-10920	-00550	00320	-00160	27900	00800	03600	00400	02700
1.436	5.650	32380	-19550	-00150	00470	-00190	27500	00800	03600	00500	02400
1.436	7.790	44370	-19930	00270	00420	-00170	27100	00800	03600	00100	02400
1.436	9.790	56590	-24440	00190	00770	-00230	26500	00800	03600	00100	02000
1.436	-9.930	-06840	00630	-01190	00700	-00230	26000	00800	03600	00100	01600
1.436	GRADIENT	06151	-02583	00144	-00094	00009	-00073	00000	00002	00008	-00002

RUN NO. 35/ 0 RVL = 6.89 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CDO	CADO	CASS	CASE
1.959	-11.870	-83030	33970	-01650	00870	-00200	29500	00500	02600	00600	03800
1.959	-9.770	-67340	27020	-01540	00810	-00200	29800	00500	02500	00300	03600
1.959	-7.560	-51540	20430	-01200	00620	-00190	29900	00500	02600	00100	03400
1.959	-5.370	-36880	14630	-00860	00620	-00210	29700	00500	02600	00000	03200
1.959	-3.190	-23410	09370	-00820	00530	-00200	30200	00500	02600	00000	03000
1.959	-0.960	-10180	04180	-00600	00530	-00190	29700	00500	02600	00000	02700
1.959	1.270	03710	-01510	-00430	00340	-00180	30400	00500	02700	00000	02200
1.959	3.430	16100	-06910	-00400	00450	-00180	30200	00500	02700	00000	01800
1.959	5.650	29550	-13290	-00410	00410	-00200	30500	00500	02800	00000	01500
1.959	7.790	43240	-19110	-00140	00300	-00200	30600	00500	02800	00000	01000
1.959	9.860	56470	-24210	00070	00370	-00230	29900	00500	02900	00000	00700
1.959	-9.930	-10260	04210	-00720	00680	-00230	28500	00500	02900	00000	00300
1.959	GRADIENT	06028	-02472	00063	-00032	00003	00032	-00000	00018	-00003	-00013

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TABULATED SOURCE DATA NSFC TWT-566

(RS1003) (28 JUN 73)

NSFC 566 (IASIF) MCR 0574 LV 08 T9 S3

REFERENCE DATA

SREF = 6.1980 SQ. IN XMRP = 2.5495 IN.
 LREF = 5.3130 IN. YMRP = .0050 IN.
 BREF = 5.3130 IN. ZMRP = .0030 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 CONFIC = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SRB = .000 ORBINC = -.500

RUN NO. 26/ 0 ENVL = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	CN	CLM	CY	CYN	CSL	CAF	CBO	CABO	CABS	CAGE
4.999	-10.940	.19110	-.01270	.07680	-.00150	.28600	.00000	.00270	.00800	.00500
4.999	-8.990	.16500	-.00960	.00590	-.00150	.27200	.00000	.00200	.00800	.00500
4.999	-6.970	.14000	-.00640	.00500	-.00050	.25900	.00000	.00300	.00800	.00500
4.999	-4.920	.11320	-.00870	.00510	-.00050	.24400	.00000	.00300	.00800	.00500
4.999	-2.880	.08620	-.00990	.00370	-.00050	.23700	.00000	.00300	.00800	.00500
4.999	-.870	.06820	.00000	.00120	-.00000	.23100	.00000	.00300	.00800	.00500
4.999	1.190	.04940	.00000	.00130	-.00120	.22500	.00000	.00300	.00800	.00500
4.999	3.210	.03740	.00000	.00150	-.00140	.22000	.00000	.00300	.00800	.00500
4.999	5.360	-.02210	.00000	.00130	-.00120	.21400	.00000	.00300	.00800	.00500
4.999	7.300	-.05090	.00000	.00210	-.00140	.20400	.00000	.00400	.00800	.00500
4.999	9.210	-.08620	.00000	.00110	-.00120	.19200	.00000	.00300	.00800	.00500
4.999	-.870	.06820	.00000	.00120	-.00120	.23300	.00000	.00300	.00800	.00500
4.999	.03508	-.01147	.07113	-.00247	-.00012	-.00295	.00000	.00300	-.00010	-.00015

GRADIENT

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC T-JT-566

NSFC 566 (1A31F) MCR 0074 LV 03 19 S3

(R81004) (28 JUN 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.5400 IN.
LREF = 5.3130 IN. YREF = .0000 IN.
BREF = 5.3130 IN. ZREF = .0000 IN.
SCALE = .00240

ALPHA = .000 CONF16 = 1.000
DELTA Z = .000 RUDDER = .000
X-SID = .000 ORSLINC = -.500

RUN NO. 85/ 0 RVL = 4.96 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ON	CLM	CY	CYN	CLB	CAF	CNO	CASO	CASS	CAGE
NACH											
.599	-10.820	-.07310	-.01290	.44970	-.19950	.06120	.04700	.01100	.05200	.13000	.06300
.599	-8.880	-.07060	-.01070	.37810	-.17180	.03270	.06000	.01000	.05000	.12300	.05700
.599	-6.810	-.07660	-.00450	.29530	-.13440	.04210	.07300	.01000	.04900	.12000	.04900
.599	-4.800	-.07400	-.00140	.21230	-.09600	.03210	.08600	.01000	.04700	.11200	.04100
.599	-2.730	-.08530	.00540	.12320	-.05650	.01970	.09100	.01000	.04700	.10300	.03800
.599	-.690	-.07800	.02640	.02920	-.01290	.00660	.09300	.01000	.04700	.10300	.03900
.599	1.390	-.07360	.00450	-.07370	.03580	-.02040	.09200	.01000	.04700	.10700	.04300
.599	3.430	-.06150	-.00230	-.16150	.07560	-.02040	.09700	.01000	.04700	.10200	.04600
.599	5.430	-.05890	-.00580	-.24880	.11430	-.03210	.08700	.01000	.04900	.10900	.05100
.599	7.510	-.05210	-.00960	-.32950	.15110	-.04300	.08300	.01000	.05100	.10900	.05100
.599	9.450	-.03980	-.01730	-.39990	.18080	-.05270	.07600	.01000	.05200	.10200	.03800
.599	-.690	-.07260	.00440	.03050	-.01310	.01630	.10100	.01000	.04700	.10200	.03800
GRADIENT		.02190	-.02013	-.04593	.02116	-.01643	.03112	-.00200	-.00300	-.00107	.00000

RUN NO. 86/ 0 RVL = 6.24 GRADIENT INTERVAL = -5.00/ 5.00

	BETA	ON	CLM	CY	CYN	CLB	CAF	CNO	CASO	CASS	CAGE
NACH											
.890	-10.980	-.09770	.02860	.49530	-.22800	.06570	.09200	.01200	.05700	.13100	.06700
.890	-8.980	-.06750	.02020	.41280	-.19820	.05530	.10200	.01100	.05900	.12400	.06500
.890	-6.920	-.08100	-.00320	.33150	-.15830	.04350	.11070	.01100	.05300	.12000	.06200
.890	-4.870	-.07760	-.00610	.23850	-.11300	.03210	.12400	.01000	.05100	.10900	.05600
.890	-2.770	-.08120	-.00200	.13710	-.06180	.01810	.13300	.01000	.05000	.10300	.05300
.890	-.700	-.08210	-.00190	.02970	-.01120	.00370	.12300	.01000	.05100	.10100	.04900
.890	1.400	-.07320	.00540	-.07500	.03920	-.01010	.12700	.01000	.05100	.10300	.05200
.890	3.460	-.06430	-.01050	-.17960	.08890	-.02420	.12300	.01100	.05200	.10400	.06100
.890	5.510	-.04670	-.01760	-.26940	.13210	-.03360	.12300	.01100	.05900	.10700	.07100
.890	7.610	-.05620	-.01100	-.36060	.17780	-.04730	.12000	.01200	.05800	.10700	.07200
.890	9.560	-.05760	-.00510	-.44080	.21140	-.05780	.11600	.01200	.06100	.10800	.04900
.890	-.710	-.07220	-.00630	.03270	-.01120	.00310	.13600	.01100	.05100	.10900	.05900
GRADIENT		.00166	-.00038	-.09033	.02418	-.00676	-.00224	.00010	.00014	-.00048	.00043

(751074) (28 JUN 75)

MSFC 566 (I13:F) MCR 0074 LV 03 T9 S3

REFERENCE DATA

SREF = 6.190 SQ. IN. XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

ALPHA = .000 CONFIC = 1.000
 DELTAZ = .135 FUDDER = 1.000
 X-SRB = 1.000 ORING = -.500

PARAMETRIC DATA

RUN NO. 87/ 0 RVL = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CEL	CAF	CNO	CBO	CAS	CAB
1.044	-11.070	-0.07280	.01240	.522 0	-.24070	.07670	.19300	.01300	.06200	.14200	.08200
1.044	-9.080	-0.06880	.02880	.42700	-.19980	.06270	.20300	.01300	.06100	.14400	.08100
1.044	-6.940	-0.05680	.03300	.32580	-.16020	.04860	.21600	.01200	.05800	.13900	.08800
1.044	-4.890	-0.05130	.03140	.23800	-.12020	.03520	.22600	.01200	.05700	.13000	.09400
1.044	-2.790	-0.04860	.03010	.14010	-.07010	.02050	.23900	.01200	.05700	.12900	.09400
1.044	-.770	-0.05160	.02900	.03300	-.01580	.00490	.24200	.01200	.05700	.12700	.09400
1.044	1.410	-0.04470	.02180	-.07900	.04220	-.01120	.24200	.01200	.05800	.11700	.09500
1.044	3.480	-0.03950	-.01190	-.18080	.09610	-.02710	.23700	.01200	.05600	.11500	.09600
1.044	5.520	-0.03230	-.00340	-.27100	.14080	-.04220	.24000	.01300	.06100	.11500	.09600
1.044	7.650	-0.03660	.00700	-.36690	.18200	-.05660	.24000	.01300	.06200	.11500	.09600
1.044	9.630	-0.04070	.00510	-.45850	.22020	-.06990	.23200	.01200	.05900	.12200	.09500
1.044	-.710	-0.04940	-.00740	-.03390	-.01560	.00440	.23400	.01200	.05900	.12200	.09500
1.044	GRADIENT	.00131	-.00240	-.05051	.02673	-.00747	.00120	-.00200	.00724	-.00086	.00038

RUN NO. 88/ 0 RVL = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	ON	CLM	CY	CYN	CEL	CAF	CNO	CBO	CAS	CAB
1.249	-11.190	-0.07240	.00170	.07940	-.21490	.07670	.24800	.01200	.05600	.12800	.06400
1.249	-9.130	-0.06640	.02320	.40360	-.17570	.06210	.25400	.01100	.05500	.12700	.06300
1.249	-6.990	-0.06070	.00580	.30640	-.13810	.04760	.26000	.01100	.05400	.12600	.05800
1.249	-4.930	-0.06690	.01110	.21130	-.09700	.03290	.26400	.01100	.05200	.12200	.05500
1.249	-2.790	-0.06630	.01410	.11260	-.05130	.01770	.26900	.01100	.05200	.11800	.05200
1.249	-.770	-0.06440	.01470	.01610	-.02140	.00250	.26800	.01100	.05400	.11400	.05300
1.249	1.420	-0.06270	.01630	-.08490	.04590	-.01340	.27500	.01100	.05300	.10900	.05500
1.249	3.510	-0.05510	.01110	-.18050	.09210	-.02890	.27700	.01100	.05400	.10800	.06100
1.249	5.560	-0.04390	.00390	-.27300	.13260	-.04390	.27800	.01100	.05600	.10700	.06900
1.249	7.720	-0.03970	.00080	-.37060	.17150	-.05910	.28000	.01200	.05600	.10800	.06400
1.249	9.750	-0.03650	-.00160	-.46900	.20660	-.07790	.26900	.01200	.05900	.10900	.06900
1.249	-.700	-0.06550	.01610	.01670	-.00380	.00190	.27000	.01100	.05400	.11400	.06200
1.249	GRADIENT	.00132	.00011	-.04632	.02255	-.00734	.00152	-.00000	.00024	-.00194	.00061

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TABULATED SOURCE DATA NSFC TWT-166

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NSFC 566 (IASIF) MCR 0074 LV 03 19 S3

(R81004) (28 JUN 73)

REFERENCE DATA

SREF = 6.1980 SQ. IN YGRP = 2.5490 IN.
 LREF = 5.3130 IN. YGRP = .0000 IN.
 DREF = 5.3130 IN. ZGRP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .0000 CONF16 = 1.0000
 DELTA2 = .136 RUDDER = .0000
 X-SRB = .0000 ORDRNC = -.5000

RUN NO. 38/ 0 RVL = 6.44 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CADO	CABS	CABE
1.457	-11.190	-0.0840	-0.0770	.51860	-.21960	.07370	.31970	.00000	.04200	.09970	.04670
1.457	-9.130	-0.0380	-0.0390	.41250	-.17820	.06390	.31770	.00100	.04200	.09800	.04200
1.457	-7.530	-0.0370	-0.0220	.31220	-.13870	.04530	.31400	.00200	.04000	.09600	.04100
1.457	-4.920	-0.0420	.00190	.21420	-.09640	.03040	.28670	.00800	.03900	.09500	.03800
1.457	-2.810	-0.0420	.00310	.12250	-.05410	.01710	.29170	.00800	.03800	.09400	.03800
1.457	-.710	-0.0450	.00380	.03330	-.01410	.00430	.29370	.00800	.04000	.09300	.04000
1.457	1.410	-0.0370	.00310	-.05590	.02490	-.06860	.29270	.00800	.04100	.09200	.04000
1.457	3.970	-0.0390	.00070	-.14090	.06320	-.02120	.29100	.00800	.04100	.09200	.04300
1.457	5.670	-0.0270	-.00400	-.23430	.10450	-.03570	.29300	.00800	.04200	.09200	.04300
1.457	7.730	-0.0230	-.00980	-.33770	.14640	-.05170	.29670	.00800	.04200	.09200	.04600
1.457	9.790	-0.0190	-.01490	-.43690	.18900	-.06590	.29700	.00800	.03900	.09100	.03800
1.457	-.710	-0.0400	.00320	.03450	-.01510	.00430	.29100	.00800	.03900	.09100	.03800
GRADIENT		.00118	-.00208	-.04219	.01891	-.00612	.00152	-.00270	.00128	-.00119	.00047

RUN NO. 36/ 0 RVL = 6.92 GRADIENT INTERVAL = -5.00/ 5.00

MAON	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CADO	CABS	CABE
1.961	-11.220	-0.0820	.00620	.52170	-.21860	.06740	.28300	.00600	.04200	.06100	.03700
1.961	-9.180	-0.0620	.00990	.41210	-.17480	.05340	.28970	.00600	.04000	.06100	.02800
1.961	-7.040	-0.0640	.01490	.30720	-.13240	.03910	.28970	.00600	.02800	.06000	.02600
1.961	-4.950	-0.0680	.01990	.23940	-.09920	.02670	.28900	.00500	.02700	.06000	.02500
1.961	-2.820	-0.0710	.02750	.11580	-.04740	.01330	.28600	.00500	.02600	.06000	.02500
1.961	-.720	-0.0710	.02960	.02810	-.01030	.00270	.28300	.00500	.02600	.05900	.02500
1.961	1.420	-0.0680	.02970	-.05750	.02570	-.03860	.28300	.00500	.02700	.05900	.02600
1.961	3.530	-0.0590	.02220	-.14570	.06320	-.01980	.28400	.00500	.02700	.05900	.02600
1.961	5.710	-0.0530	.01660	-.24020	.10720	-.03210	.29400	.00600	.02900	.05400	.02700
1.961	7.740	-0.0380	.00210	-.34380	.15040	-.04630	.31000	.00600	.02900	.05400	.02800
1.961	9.780	-0.0310	-.00410	-.44770	.19270	-.06060	.30900	.00600	.03100	.05300	.02500
1.961	-.720	-0.0740	.03370	.02680	-.02910	.00170	.28600	.00500	.02500	.05900	.02500
GRADIENT		.00283	.00732	-.04161	.01792	-.00535	.00285	-.00200	-.00205	-.00157	.00003

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TABULATED SOURCE DATA MSFC TW-565

MSFC 566 (IA31F) MCR 0074 LV 03 T9 S3

(R81004) (28 JUN 73)

REFERENCE DATA

SREF = 6.1980 IN. YREF = 2.5490 IN.
 LREF = 5.3130 IN. VREF = .0000 IN.
 DREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 CONFIG = 1.000
 DELTA Z = .136 RUDDER = .000
 X-SRB = .000 ORBINC = -.500

RUN NO. 25/0 RNL = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CADO	CASS	CAGE
4.959	-10.720	-111580	.07110	.37130	-.16420	.04340	.26100	.00000	.00400	.00700	.00400
4.959	-8.760	-111880	.06740	.29580	-.12980	.03340	.25100	.00100	.00400	.00700	.00400
4.959	-6.750	-110880	.06250	.22030	-.09730	.02350	.24400	.00000	.00400	.00700	.00400
4.959	-4.710	-110280	.06300	.18250	-.06800	.01460	.23900	.00000	.00400	.00800	.00300
4.959	-2.690	-109200	.06270	.08690	-.03890	.00790	.23300	.00000	.00400	.00800	.00300
4.959	-6.40	-109940	.06470	.02520	-.00870	.00150	.23000	.00000	.00300	.00800	.00200
4.959	1.370	-109640	.06160	-.04430	.02110	-.00550	.23100	.00000	.00300	.00800	.00300
4.959	3.370	-109680	.06170	-.10790	.05070	-.01200	.23400	.00000	.00400	.00800	.00300
4.959	5.410	-108610	.05850	-.17550	.08000	-.01990	.23900	.00000	.00400	.00700	.00300
4.959	7.440	-109080	.05910	-.24910	.11140	-.02930	.24600	.00000	.00400	.00700	.00400
4.959	9.350	-108780	.05870	-.32260	.14370	-.03860	.25300	.00100	.00400	.00800	.00300
4.959	-1.690	-109580	.06040	.02320	-.00820	.00100	.22900	.00000	.00400	.00800	.00300
4.959		.00000	-.00000	-.03225	.01469	-.00329	-.00000	.00000	-.00000	-.00000	-.00000

GRADIENT

DATE 25 AUG 75

TABULATED SOURCE DATA NSFC TWT-566

PAGE 21

NSFC 566 (TA31F) MCR D074 LV Q3 T9 S3

(R81005) (28 JUN 75)

REFERENCE DATA

SREF = 6.1990 SQ. IN. XREF = 2.5490 IN.
 LREF = 5.3135 IN. YREF = .0000 IN.
 BREF = 5.3135 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 CONF16 = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SIB = .000 ORSINC = 1.500

PARAMETRIC DATA

RUN NO. 50/ 0 RV/L = 4.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLN	CY	CYN	CL	CAF	CBO	CABO	CABS	CASE
.595	-11.110	-.60910	.21630	-.02340	.01230	-.00020	.06600	.01000	.04700	.10700	.05800
.595	-9.120	-.48710	.16420	-.01610	.00880	.00020	.06800	.00900	.04500	.10200	.04900
.595	-7.560	-.37240	.11560	-.02130	.01250	-.00060	.09500	.00900	.04600	.09800	.04100
.595	-5.040	-.26820	.06870	-.01800	.01150	.00000	.10500	.00900	.04500	.09200	.03600
.595	-2.950	-.14110	.01710	-.01200	.00910	.00160	.10900	.00900	.04500	.09300	.03200
.595	-.860	-.02415	-.03310	-.01170	.00880	.00140	.11000	.00900	.04600	.09400	.03000
.595	1.220	.10140	-.08200	-.00570	.00640	.00190	.10900	.00900	.04600	.09400	.03200
.595	3.280	.22750	-.13070	.00150	.00290	.00280	.09700	.00900	.04500	.09800	.03200
.595	5.330	.34780	-.18180	-.00470	.00390	.00360	.08900	.00900	.04500	.10200	.02700
.595	7.440	.46700	-.23300	-.00290	.00300	.00470	.08100	.00900	.04400	.10300	.02300
.595	9.390	.59090	-.28780	-.00190	.00290	.00470	.06900	.00900	.04500	.10600	.02000
.595	-.870	.05030	-.03870	-.01300	.00830	.00100	.10400	.00900	.04500	.10600	.02000
	GRADIENT	.05937	-.02374	.00224	-.00101	.00020	-.00198	.00000	.00000	.00072	.00000

RUN NO. 49/ 0 RV/L = 6.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLN	CY	CYN	CL	CAF	CBO	CABO	CABS	CASE
.897	-11.440	-.68690	.25990	-.03280	.01860	-.00180	.10900	.01100	.05300	.10700	.06700
.897	-9.390	-.53930	.19640	-.03160	.01810	-.00260	.11600	.01100	.05300	.10400	.06200
.897	-7.290	-.40640	.13990	-.02720	.01530	-.00210	.12800	.01100	.05200	.09800	.05700
.897	-5.170	-.28080	.08470	-.02680	.01630	-.00240	.13200	.01000	.05100	.09700	.05400
.897	-3.030	-.14020	.01110	-.02230	.01420	-.00200	.13700	.01000	.04900	.09500	.04800
.897	-.920	-.01120	-.04630	-.01480	.00990	-.00150	.14000	.01000	.04800	.09400	.04400
.897	1.240	.11740	-.10430	-.01360	.00840	-.00090	.14900	.01000	.04800	.09900	.03800
.897	3.370	.24430	-.15230	-.01140	.00780	-.00020	.14400	.01000	.04800	.10700	.04100
.897	5.470	.37020	-.19870	-.00920	.00700	.00060	.13900	.01000	.05000	.11000	.03800
.897	7.510	.49560	-.25040	-.00710	.00610	.00110	.12700	.01000	.05100	.11700	.03600
.897	9.610	.60850	-.29470	-.00430	.00480	.00110	.12700	.01000	.04900	.09500	.04500
.897	-.910	-.02690	-.05040	-.01940	.01260	-.00240	.13900	.01000	.04900	.09600	.04500
	GRADIENT	.06002	-.02357	.00158	-.00079	.00028	.00141	.00000	-.00019	.00056	-.00083

DATE 25 AUG 73

TABULATED SOURCE DATA MSFC TWT-566

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(R01005) (28 JUN 73)

MSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

REFERENCE DATA

MACH = 1.049
 SREF = 6.1980 SQ. IN
 LREF = 5.3135 IN.
 BREF = 5.3135 IN.
 SCALE = .0145

BETA = .000
 DELTAZ = .136
 X-SRB = .000
 ORBINC = .500

RUN NO. 48/ 0 RVL = 6.59 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CL	CAF	CBO	CABO	CABS	CASE
1.049	-11.590	-7.5040	.30210	-.02100	.01250	-.00150	.21700	.01200	.05870	.13700	.06700
1.049	-9.570	-5.8550	.23130	-.01700	.01130	-.00150	.22900	.01200	.05870	.13300	.06300
1.049	-7.320	-4.2980	.16430	-.01440	.01030	-.00130	.24400	.01200	.05700	.12600	.05600
1.049	-5.190	-2.8690	.10100	-.00840	.00690	-.00070	.25100	.01200	.05800	.12200	.05300
1.049	-2.990	-1.3630	.02950	-.00310	.00480	-.00020	.25100	.01200	.05800	.12000	.04900
1.049	-0.870	.01060	-.04210	.00220	.00110	.00030	.25200	.01200	.05800	.12000	.04200
1.049	1.290	.14850	-.11390	.00720	.00350	.00060	.24700	.01200	.05800	.12000	.03800
1.049	3.410	.27220	-.16530	.01800	.00720	.00100	.24300	.01200	.05600	.12000	.03300
1.049	5.540	.38970	-.20480	.01300	.00210	.00060	.23600	.01200	.05600	.13100	.02700
1.049	7.710	.51670	-.24850	.01300	.00210	.00060	.22800	.01200	.05700	.13800	.02300
1.049	9.700	.62160	-.29720	.01480	.00290	.00050	.22700	.01200	.05900	.12100	.04600
1.049	-0.870	.01060	-.04120	.00300	.00130	.00050	.24700	.01200	.05900	.12100	.04600
1.049	-0.870	.06380	-.03072	.00181	-.00077	.00028	-.00122	.00000	-.00014	.00000	-.00243

GRADIENT

RUN NO. 47/ 0 RVL = 6.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CL	CAF	CBO	CABO	CABS	CASE
1.248	-11.750	-7.7930	.29380	-.03110	.01220	-.00230	.24700	.01000	.05100	.12300	.07000
1.248	-9.620	-5.9260	.21170	-.02230	.00860	-.00200	.25600	.01100	.05200	.12200	.06900
1.248	-7.420	-4.2520	.14170	-.01850	.00600	-.00150	.26400	.01100	.05200	.11700	.06100
1.248	-5.240	-2.7070	.07820	-.01350	.00660	-.00170	.27100	.01100	.05300	.11500	.05800
1.248	-3.040	-1.2600	.01890	-.01110	.00580	-.00150	.27800	.01100	.05400	.11300	.05600
1.248	-0.890	.02040	-.04350	-.01000	.00550	-.00160	.28400	.01100	.05500	.11300	.04900
1.248	1.310	.15040	-.10220	-.00500	.00410	-.00100	.28200	.01100	.05600	.11900	.04900
1.248	3.470	.26630	-.16250	-.00790	.00310	-.00110	.27900	.01100	.05600	.12000	.04100
1.248	5.610	.41380	-.21540	-.00160	.00070	-.00070	.27100	.01100	.05500	.12100	.03900
1.248	7.780	.52990	-.26780	.00370	.00080	-.00190	.26900	.01100	.05600	.12400	.03300
1.248	9.820	.64750	-.31420	.00750	.00130	-.00120	.26900	.01100	.05600	.11400	.03200
1.248	-0.850	.02280	-.04450	-.00810	.00140	-.00140	.28400	.01100	.05500	.11400	.03200
1.248	-0.850	.06302	-.02771	.00123	-.00016	.00008	-.00009	.00000	.00000	.00000	-.00111

GRADIENT

(R81055) (28 JUN 73)

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (1A31F) MCR 0074 LV 03 T9 S3

DATE 23 AUG 73

PARAMETRIC DATA

BETA = .003 CONF16 = 1.000
 DELTAZ = .136 RUDDER = .000
 X-SRB = .000 ORBINC = 1.500

REFERENCE DATA

SRF = 6.1900 54. IN XMRP = 2.5490 IN.
 LREF = 5.3130 IN. YMRP = .0000 IN.
 BRP = 5.3130 IN. ZMRP = .0000 IN.
 SCALE = .0040

RUN NO. 46/ 0 RV/L = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	ON	CLN	CY	CYN	CL	CAF	CNO	CBO	CBS	CASE
1.466	-11.780	-7.9290	.30730	-.03240	.01710	-.00310	.27700	.01800	.03800	.09470	.05700
1.466	-9.660	-6.1150	.22290	-.02440	.01270	-.00240	.28300	.01800	.03800	.09200	.05300
1.466	-7.450	-4.4260	.14950	-.02050	.01070	-.00230	.29100	.01800	.03800	.08900	.04800
1.466	-5.280	-2.8170	.07810	-.01580	.00960	-.00170	.30300	.02800	.03700	.08600	.04200
1.466	-3.070	-1.3290	.01630	-.01400	.00940	-.00160	.30600	.03800	.03500	.08300	.03800
1.466	-.880	.01460	-.04290	-.01400	.00770	-.00140	.31200	.03800	.03500	.08000	.03100
1.466	1.340	.14740	-.09130	-.00740	.00770	-.00110	.31200	.03800	.03500	.07700	.03100
1.466	3.460	.26480	-.14270	-.00490	.00590	-.00110	.30700	.03800	.03500	.07400	.02600
1.466	5.590	.38630	-.19690	-.00100	.00430	-.00100	.30300	.03800	.03500	.07100	.02300
1.466	7.770	.50970	-.24840	.00290	.00290	.00200	.30700	.03800	.03500	.06800	.02000
1.466	9.820	.62970	-.29170	.00360	.00260	.00200	.31400	.03800	.03500	.06500	.01700
1.466	-.870	.01590	-.04330	-.00910	.00760	-.00110	.31400	.03800	.03500	.06200	.01400
1.466	GRADIENT	.06081	-.02409	.00144	-.00048	.00208	-.00203	.00000	.00000	.00146	-.00115

RUN NO. 34/ 0 RV/L = 6.92 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	ON	CLN	CY	CYN	CL	CAF	CNO	CBO	CBS	CASE
1.955	-11.860	-7.7940	.29830	-.01630	.00790	-.00200	.31400	.02900	.02400	.06100	.03500
1.955	-9.720	-6.0860	.22540	-.01400	.00590	-.00160	.30700	.02900	.02400	.05800	.03200
1.955	-7.520	-4.5060	.15610	-.01010	.00540	-.00200	.31100	.02900	.02400	.05500	.02900
1.955	-5.330	-3.0110	.09620	-.00790	.00440	-.00210	.30900	.02900	.02400	.05200	.02600
1.955	-3.110	-1.6340	.04290	-.00630	.00370	-.00210	.31500	.02900	.02400	.04900	.02300
1.955	-.910	-.02770	-.01100	-.00460	.00370	-.00180	.32200	.02900	.02400	.04600	.02000
1.955	1.310	.10740	-.06470	-.00420	.00390	-.00160	.33000	.02900	.02400	.04300	.01700
1.955	3.490	.24540	-.12530	-.00260	.00390	-.00160	.32500	.02900	.02400	.04000	.01400
1.955	5.680	.38630	-.17840	-.00160	.00390	-.00220	.32500	.02900	.02400	.03700	.01100
1.955	7.830	.48960	-.22670	-.00120	.00390	-.00280	.32800	.02900	.02400	.03400	.00800
1.955	9.910	.61670	-.27090	.00250	.00390	-.00200	.29900	.02900	.02400	.03100	.00500
1.955	-.910	-.03120	-.07620	-.00690	.00600	-.00200	.00241	-.00000	-.00000	-.00000	-.00159
1.955	GRADIENT	.06210	-.02538	.00182	-.00014	.00004					

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (1A31F) MCR 0074 LV 08 T9 S3

(R81005) (28 JUN 73)

REFERENCE DATA

SREF = 6.1980 SB. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 CO-16 = 1.000
 DELTAZ = .116 RUDDER = .000
 X-SRB = .000 ORIGIN = 1.500

RUN NO. 23/ 0 RV/L = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ON	CLN	CY	CYN	CSL	CAF	CNSO	CABO	CASS	CASE
4.999	-10.940	-46370	.18020	-.00890	.00510	-.00210	.29800	.00200	.00100	.00800	.00500
4.999	-8.980	-38320	.15270	-.00660	.00560	-.00180	.28100	.00200	.00200	.00800	.00500
4.999	-6.960	-31040	.12720	-.00460	.00280	-.00120	.27700	.00100	.00200	.00800	.00400
4.999	-4.910	-24170	.10540	-.00280	.00140	-.00070	.25600	.00200	.00200	.00800	.00300
4.999	-2.860	-16560	.07170	-.00190	.00090	-.00010	.24700	.00200	.00300	.00800	.00200
4.999	-.870	-10200	.03270	-.00070	.00040	-.00010	.23800	.00200	.00300	.00800	.00200
4.999	1.200	-03830	.00970	.00230	.00140	-.00020	.23400	.00200	.00300	.00800	.00100
4.999	3.190	.04180	.00970	.00050	.00060	-.00140	.22800	.00200	.00300	.00800	.00100
4.999	5.220	.12600	-.00200	.00470	-.00110	-.00240	.22300	.00200	.00300	.00800	.00100
4.999	7.280	.21200	-.00900	.00290	.00040	-.00190	.21800	.00200	.00300	.00800	.00100
4.999	9.190	.28370	-.00280	.00330	.00060	-.00120	.21300	.00200	.00300	.00800	.00100
4.999	-.870	-.09600	.00220	.00110	.00020	-.00060	.20800	.00200	.00300	.00800	.00100
4.999	GRADIENT	.03423	-.01055	.00107	-.00034	.00002	-.00340	.00200	.00010	-.00000	-.00000

(R81006) (28 JUN 73)

TABULATED SOURCE DATA NSFC TWT-566
NSFC 566 (1A31F) MCR 0074 LV 08 19 53

DATE 25 AUG 75

PARAMETRIC DATA

ALPHA = .000 CONF16 = 1.070
DELTAZ = .136 RUDDER = .000
X-SCB = .000 ORBINC = 1.500

REFERENCE DATA

SREF = 6.1980 SQ. IN XMRP = 2.5490 IN.
LREF = 5.3130 IN. YMRP = .0000 IN.
BREF = 5.3130 IN. ZMRP = .0000 IN.
SCALE = .0040

RUN NO. 92/ 0 RVL = 4.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	QJM	CY	CYN	CEL	CAF	QBO	CBO	CAS	CASE
.594	-10.820	.01060	-.05230	.44960	-.20180	.06310	.05900	.01000	.05100	.12900	.06200
.594	-8.660	.01430	-.03990	.36970	-.17240	.05300	.06800	.01000	.04900	.12400	.05800
.594	-6.890	.02640	-.05710	.29650	-.14000	.04210	.07200	.01000	.04500	.12200	.05100
.594	-4.790	.03160	-.04980	.21610	-.10200	.03170	.08800	.01000	.04700	.11600	.03900
.594	-2.710	.03030	-.04730	.12400	-.06000	.01980	.09600	.01000	.04700	.10700	.03500
.594	-.690	.03020	-.04280	.03290	-.01400	.00700	.10100	.00800	.04600	.10300	.03200
.594	1.380	.01100	-.04780	-.06690	.03450	-.02640	.10400	.00900	.04600	.10800	.03800
.594	3.420	.02100	-.05560	-.15800	.07740	-.03040	.10000	.01000	.04800	.10400	.04000
.594	5.420	.02310	-.05790	-.23540	.11270	-.03040	.10000	.01000	.05300	.10700	.05400
.594	7.500	.03270	-.06320	-.32110	.15210	-.04280	.09100	.01100	.05300	.10700	.05800
.594	9.430	.03460	-.06410	-.39130	.18170	-.05280	.09100	.01100	.05300	.10700	.06200
.594	-.690	-.02030	-.04210	.03290	-.01440	.03680	.10400	.00800	.04600	.10000	.03200
	GRADIENT	.00272	-.00058	-.04579	.00215	-.07625	.00146	-.00705	.00000	-.00181	.00054

RUN NO. 91/ 0 RVL = 6.25 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	QJM	CY	CYN	CEL	CAF	QBO	CBO	CAS	CASE
.895	-10.980	.03730	-.03000	.49540	-.23160	.06750	.09700	.01200	.05900	.13200	.06800
.895	-9.000	.01710	-.04230	.41720	-.20270	.06680	.11300	.01100	.05900	.12900	.06300
.895	-6.530	.03160	-.05510	.33320	-.16520	.04440	.12800	.01000	.05100	.11700	.05800
.895	-4.680	.02810	-.05190	.23900	-.12010	.03200	.12800	.01000	.05000	.11400	.05500
.895	-2.750	.02480	-.05190	.13620	-.06760	.01800	.13400	.01000	.05000	.10800	.05000
.895	-.700	.02490	-.05080	.03440	-.01920	.00460	.13400	.01000	.05000	.10800	.04800
.895	1.400	.02010	-.05220	-.07470	.04110	-.00990	.14000	.01000	.05000	.10900	.04900
.895	3.470	.02460	-.05690	-.17430	.09110	-.02280	.13900	.01100	.05100	.10900	.05000
.895	5.490	.01990	-.06230	-.26370	.13620	-.03420	.13900	.01100	.05400	.10800	.05800
.895	7.600	.01960	-.06110	-.36200	.16190	-.04710	.12900	.01200	.05800	.10400	.07500
.895	9.570	.00670	-.04810	-.43820	.21320	-.05890	.12800	.01300	.06100	.10400	.08500
.895	-.710	.00510	-.05070	.03740	-.01680	.00410	.13900	.01000	.05000	.10300	.03900
	GRADIENT	.00154	-.00047	-.04995	.00347	-.00699	.00116	.00010	.00000	-.00187	.00033

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (1A31F) MCR 5074 LV Q3 T9 S3

(R81006) (28 JUN 73)

PAGE 26

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1995 SQ. IN XREF = 2.5493 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

ALPHA = .000 CONFIG = 1 000
 DELTAZ = .136 RUDDER = .070
 X-SRS = .000 ORBINC = 1.500

RUN NO. 90/ 0 RNVL = 6.57 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CBO	CAB	CABE
1.045	-11.040	-0.0220	-0.03470	.51170	-.24170	.07490	.20900	.01200	.05900	.14500	.05900
1.045	-9.020	.00340	-.03710	.41600	-.20350	.06250	.21600	.01200	.05900	.14300	.05900
1.045	-6.950	.02340	-.04900	.32530	-.16550	.04970	.22900	.01200	.05700	.13900	.05400
1.045	-4.870	.03420	-.05720	.23480	-.12230	.03580	.23900	.01100	.05500	.13300	.05000
1.045	-2.790	.03440	-.05410	.13560	-.07150	.02060	.24600	.01100	.05500	.12700	.04800
1.045	-1.700	.03310	-.05090	.03480	-.01750	.00560	.24900	.01100	.05600	.12000	.04300
1.045	1.400	.04040	-.05500	-.07360	.04150	-.01010	.25200	.01200	.05800	.11500	.04600
1.045	3.480	.04470	-.05780	.09470	.09470	-.02570	.25100	.01200	.05800	.11400	.05300
1.045	5.970	.04440	-.05510	-.26980	.14630	-.04160	.24800	.01200	.06200	.11500	.05700
1.045	7.620	.03630	-.04660	-.36100	.18660	-.05560	.24400	.01300	.06100	.11600	.05900
1.045	9.540	.03210	-.04350	-.44930	.22260	-.06890	.23400	.01300	.06300	.11800	.06400
1.045	-7.000	.03290	-.05180	.03410	-.01770	.00510	.24200	.01200	.05800	.12200	.04600
1.045		.03130	-.05010	-.04950	.02624	-.00739	.03115	.00314	.00034	-.00240	.00033

GRADIENT

RUN NO. 89/ 0 RNVL = 6.66 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CNO	CBO	CAB	CABE
1.249	-11.140	.02050	-.04760	.46930	-.20770	.07360	.26270	.01100	.05900	.12800	.06200
1.249	-9.110	.02610	-.04680	.39320	-.17520	.06110	.27100	.01100	.05400	.12600	.05800
1.249	-6.970	.01120	-.04690	.29860	-.13790	.04670	.27300	.01100	.05300	.12500	.05400
1.249	-4.890	.01160	-.04370	.20510	-.09840	.03260	.27700	.01100	.05200	.12200	.05200
1.249	-2.760	.01370	-.04330	.11060	-.05330	.01770	.28000	.01100	.05200	.11800	.05000
1.249	-1.700	.01700	-.04500	.01630	-.03590	.00290	.28300	.01100	.05400	.11300	.04800
1.249	1.410	.02220	-.04480	-.08210	.04560	-.01240	.28000	.01100	.05300	.10700	.05300
1.249	3.490	.02170	-.04380	-.17140	.08920	-.02790	.29000	.01100	.05400	.10600	.05900
1.249	5.950	.03100	-.04990	-.26390	.13110	-.04210	.29600	.01200	.05500	.10600	.06200
1.249	7.700	.03310	-.05150	-.35920	.16960	-.05730	.29400	.01200	.05800	.10700	.06700
1.249	9.710	.03310	-.05200	-.44870	.19780	-.07060	.28900	.01200	.05900	.11200	.06800
1.249	-7.000	.01840	-.04460	.01810	-.03620	.00290	.28900	.01100	.05300	.11200	.04800
1.249		.00137	-.00008	-.04519	.02265	-.00716	.03172	-.00000	.00024	-.00205	.00091

GRADIENT

DATE 25 AUG 73

TABULATED SOURCE DATA MSFC TAF-566

PAGE 27

(081006) (26 JUN 73)

MSFC 566 (1A31F) MCR 0074 LV 05 TS 53

REFERENCE DATA

SREF = 6.1980 SQ. IN. XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

ALPHA =
 DELTA Z =
 X-SIG =

.000 CONF16 = 1.000
 .136 RUDDER = .000
 .000 ORBINC = 1.500

PARAMETRIC DATA

RUN NO. 45/ 0 RVL = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	CEL	CAF	CRD	CAD	CAB	CABE
1.468	-11.160	.03190	-.05940	.51410	-.21740	.07460	.29100	.00900	.04200	.09100	.04820
1.468	-9.170	.03440	-.05810	.40580	-.17380	.06010	.31200	.00800	.04100	.08900	.04100
1.468	-7.000	.03200	-.05390	.30370	-.13360	.04490	.31600	.00800	.03900	.09100	.03700
1.468	-4.910	.03100	-.05350	.21040	-.09900	.03130	.30700	.00800	.03800	.09100	.03500
1.468	-2.780	.03090	-.05270	.12400	-.05770	.01800	.30000	.00800	.03700	.09100	.03400
1.468	-.710	.04090	-.05320	.03540	-.01670	.00510	.31100	.00800	.03700	.09100	.03300
1.468	3.470	.04430	-.05380	-.05380	.02490	-.03800	.31500	.00800	.03600	.09100	.03400
1.468	5.590	.05200	-.05290	-.13930	.06560	-.02150	.31700	.00800	.04000	.09100	.03800
1.468	7.690	.05540	-.05700	-.22090	.10390	-.03820	.31700	.00800	.04000	.09100	.03700
1.468	9.710	.06390	-.06520	-.41780	.17780	-.06890	.31900	.00700	.04100	.09100	.04200
1.468	-.710	.04090	-.05410	.03720	-.01790	.00500	.31100	.00700	.03700	.09100	.03300
1.468	GRADIENT	.00157	-.00023	-.04187	.01927	-.00628	.00096	-.00000	.00216	-.00086	.00008

RUN NO. 33/ 0 RVL = 6.91 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	CEL	CAF	CRD	CAD	CAB	CABE
1.956	-11.220	-.00630	-.03180	.51020	-.21080	.06620	.31100	.00900	.02400	.06200	.02700
1.956	-9.170	.01100	-.03420	.39930	-.16740	.05130	.32300	.00800	.02400	.06100	.02400
1.956	-7.040	.01170	-.03190	.30010	-.12890	.03870	.34600	.00700	.02500	.06200	.02200
1.956	-4.940	.00960	-.02490	.20660	-.08980	.02990	.33000	.00900	.02500	.06100	.02100
1.956	-2.810	-.00190	-.02190	.11360	-.04870	.01270	.31700	.00900	.02600	.06000	.01900
1.956	-.710	.00230	-.02190	.02900	-.01190	.00220	.31800	.00900	.02600	.06000	.02000
1.956	1.420	.00950	-.02230	-.05570	.02470	-.00790	.31300	.00900	.02700	.05900	.02100
1.956	3.520	.00830	-.02560	-.14110	.06270	-.01890	.32000	.00900	.02700	.05800	.02100
1.956	5.600	.01180	-.02940	-.23080	.10260	-.03130	.31700	.00800	.02900	.05900	.02300
1.956	7.750	.02360	-.03910	-.32710	.14200	-.04480	.32100	.00800	.03100	.05100	.02400
1.956	9.780	.02940	-.04660	-.42750	.18030	-.05790	.32800	.00900	.03100	.05000	.02500
1.956	-.710	-.00320	-.01730	.02800	-.01090	.00190	.29800	.00900	.02900	.05000	.02000
1.956	GRADIENT	.00075	-.00014	-.04088	.01789	-.00017	-.00114	.00019	.00019	-.00038	.00009

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (IASIF) MCR 0074 LV Q3 T9 S3

(R81053) (28 JUN 73)

REFERENCE DATA

SREF = 6.1980 SA. IN XREF = 2.5490 IN.
LREF = 5.3130 IN. YREF = .0000 IN.
BREF = 5.3130 IN. ZREF = .0000 IN.
SCALE = .0040

ALPHA = .000 CONFIG = 1.000
DELTAZ = .136 RUDDER = .000
X-SIG = .000 ORDRNC = 1.500

PARAMETRIC DATA

RUN NO. 24/ 0 RVL = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CN	CLM	CY	CYN	CEL	CAF	CBO	CBO	CABS	CAGE
4.999	-10.750	-.0930	.06260	.36190	-.16070	.04330	.27300	.00000	.00400	.00700	.00400
4.999	-8.750	-.09600	.05790	.28630	-.12670	.03310	.26900	.00000	.00400	.00800	.00300
4.999	-6.750	-.08670	.05710	.21650	-.09630	.02320	.25500	.00000	.00400	.00800	.00300
4.999	-4.710	-.08350	.05400	.14880	-.06610	.01460	.24900	.00000	.00400	.00800	.00300
4.999	-2.680	-.08040	.05090	.08690	-.04000	.00790	.24100	.00000	.00400	.00800	.00300
4.999	-.680	-.07690	.04780	.02330	-.01040	.00180	.23700	.00000	.00400	.00800	.00300
4.999	1.370	-.07730	.04790	-.04610	.02270	-.01530	.23700	.00000	.00400	.00800	.00300
4.999	3.370	-.07780	.04990	-.10780	.05110	-.01200	.24200	.00000	.00400	.00800	.00300
4.999	5.390	-.07470	.05090	-.17350	.07830	-.02010	.25100	.00000	.00400	.00800	.00300
4.999	7.420	-.07550	.05430	-.24330	.10890	-.02910	.25800	.00000	.00400	.00800	.00300
4.999	9.340	-.07230	.05480	-.31480	.14040	-.03780	.26500	.00000	.00400	.00800	.00300
4.999	-.690	-.07300	.04810	.02710	-.01090	.00130	.23700	.00000	.00400	.00800	.00300
4.999	GRADIENT	.00072	-.00255	-.03198	.01470	-.01329	-.00089	.00000	-.00005	.00015	-.00015

DATE 25 AUG 73

TABULATED SOURCE DATA MSFC TWT-566

MSFC 566 (1A31F) MCR 0074 LV 03 19 S3

PAGE 29

(.810077) (28 JUN 73)

REFERENCE DATA

SREF = 6.1980 SQ. IN. XREF = 2.5490 IN.
LREF = 5.3130 IN. YREF = .0000 IN.
BREF = 5.3130 IN. ZREF = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = 5.000 CONFIG = 1.000
DELTA Z = .000 RUDDER = .000
X-CRB = .000 ORSINC = .500

RUN NO. 93/ 0 RVL = 6.30 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	ON	CLM	CY	CYN	CEL	CAF	CNO	CADO	CAES	CABE
.900	-11.000	.30740	-.17310	.50230	-.22660	.07500	.08200	.01200	.05800	.12500	.05800
.920	-9.000	.31340	-.17560	.42380	-.19890	.06500	.10100	.01100	.05600	.12200	.05700
.930	-8.900	.31720	-.17650	.39970	-.16480	.06370	.11100	.01100	.05700	.11700	.05300
.940	-8.920	.31530	-.17210	.25200	-.12330	.04050	.12100	.01100	.05100	.11100	.04700
.970	-4.880	.31450	-.16660	.15200	-.07340	.02510	.12400	.01000	.05000	.10800	.04500
.970	-2.790	.31250	-.16420	.04030	-.02140	.01860	.12500	.01000	.04900	.10700	.04100
.970	-.720	.31390	-.16400	-.06180	.03530	-.01870	.12900	.01000	.04300	.11300	.04000
.900	1.370	.31920	-.16670	-.16310	.08590	-.02450	.11800	.01000	.05300	.11800	.05300
.970	3.420	.33470	-.17610	-.26060	.13330	-.04080	.11700	.01200	.06600	.11600	.05900
.900	5.470	.34410	-.18150	-.35270	.17550	-.05460	.11200	.01200	.06800	.11600	.06100
.900	7.560	.34250	-.18010	-.43520	.20860	-.06530	.11100	.01000	.05000	.11100	.06300
.900	9.560	.31610	-.16570	-.04780	-.02140	.03710	.12600	.01000	.05000	.11000	.06300
.900	-.710	.00035	.00065	-.05029	.02539	-.00789	-.00024	-.00010	-.00005	.00014	.00001

RUN NO. 94/ 0 RVL = 6.61 GRADIENT INTERVAL = -5.00/ 5.00

MACN	BETA	ON	CLM	CY	CYN	CEL	CAF	CNO	CADO	CAES	CABE
1.032	-11.080	.33490	-.16990	.54790	-.25060	.08470	.24600	.07400	.02100	.13500	.05200
1.032	-9.050	.34530	-.17590	.44080	-.21260	.07130	.25600	.06400	.02200	.13100	.04800
1.032	-6.960	.34520	-.17650	.35610	-.17820	.05830	.26200	.06400	.01900	.13200	.04400
1.032	-4.890	.34970	-.17890	.25850	-.13370	.04230	.26900	.05300	.01700	.12800	.03900
1.032	-2.790	.35420	-.17830	.15540	-.08190	.02520	.27100	.04300	.01500	.12600	.03500
1.032	-.710	.36070	-.18080	.04740	-.02390	.00740	.26900	.03900	.01500	.12400	.03200
1.032	1.390	.36280	-.18390	-.06760	.03940	-.01150	.25900	.03400	.02200	.12500	.03500
1.032	3.430	.36740	-.18410	-.17760	.09300	-.02930	.26300	.03300	.01600	.12500	.04100
1.032	5.510	.37270	-.18960	-.27050	.14150	-.04610	.25800	.03500	.02400	.12700	.04500
1.032	7.620	.37540	-.19100	-.36100	.18270	-.06070	.24700	.03700	.03400	.13000	.05300
1.032	9.610	.37570	-.19100	-.44990	.21790	-.07480	.23100	.03800	.03900	.13200	.05300
1.032	-.720	.35960	-.18010	-.04960	-.02440	.00680	.26600	.03000	.01500	.12500	.03400
1.032		.00211	-.00079	-.05183	.02755	-.00862	-.00115	.00005	.00024	-.00038	-.00000

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

(R81007) (28 JUN 73)

NSFC 566 (A31F) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

REFERENCE DATA

REF = 6.1980 SQ. IN. XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0020 IN.
 DREF = 5.3130 IN. ZREF = .0020 IN.
 SCALE = .0040

ALPHA = 5.000 CONFIG = 1.000
 DELTA Z = .136 RUDDER = .000
 X-STD = .000 ORBINC = .500

RUN NO. 95/ 0 RVL = 6.71 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CAF	CNO	CDO	CBS	CASE
1.248	-11.150	.35770	-1.9070	.51120	-21310	.07950	.29100	.00800	.02600	.13400	.05600
1.248	-9.120	.35610	-1.8590	.41470	-1.8110	.06730	.29800	.00400	.02300	.13300	.05300
1.248	-7.100	.35510	-1.8690	.31900	-1.4270	.05250	.29300	.00600	.03200	.13100	.05000
1.248	-4.910	.35140	-1.8770	.22380	-1.0300	.03720	.27200	.01100	.05400	.12700	.04300
1.248	-2.780	.35080	-1.8390	.12450	-.05780	.02130	.27200	.01100	.05400	.12100	.04000
1.248	-.710	.35290	-1.8380	.03210	-.01270	.00530	.27600	.01100	.05600	.11000	.04500
1.248	1.400	.36730	-1.8690	-.06520	.03580	-.02660	.28100	.01100	.05500	.11600	.04500
1.248	3.490	.36190	-1.8790	-.15430	.07760	-.04210	.27800	.01200	.05700	.12000	.05000
1.248	5.540	.36880	-1.9210	-.24640	.11940	-.05680	.27300	.01200	.05900	.12400	.05300
1.248	7.670	.37510	-1.9590	-.34240	.19880	-.06800	.26900	.01200	.06000	.12700	.05700
1.248	9.700	.37820	-1.9810	-.43620	.19160	-.07590	.26800	.01100	.05400	.12100	.05300
1.248	-.720	.34990	-1.8130	.03070	-.01090	.00420	.27600	.01100	.05400	.12100	.05300
1.248	GRADIENT	.00145	-.00715	-.00480	.02168	-.00760	.00100	.00205	.00019	-.00181	-.00000

RUN NO. 100/ 0 RVL = 6.52 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CN	CLM	CY	CYN	CBL	CAF	CNO	CDO	CBS	CASE
1.461	-11.170	.38220	-1.7770	.49570	-21610	.07510	.31800	.00200	.00400	.10300	.04000
1.461	-9.120	.34940	-1.7450	.38670	-1.6340	.06050	.32500	.00100	.00500	.10200	.03600
1.461	-6.990	.34520	-1.6980	.28720	-1.12500	.04670	.32500	.00100	.00600	.10200	.03300
1.461	-4.910	.34680	-1.6900	.19720	-.08770	.03210	.32900	.00100	.00500	.10200	.02900
1.461	-2.730	.34730	-1.6820	.10630	-.04760	.01680	.33000	.00100	.00500	.10100	.02800
1.461	-.700	.34430	-1.6820	.02260	-.03980	.00300	.31400	.00100	.02300	.09800	.02700
1.461	1.420	.34730	-1.7190	-.06410	.03030	-.01080	.30300	.00200	.03900	.09300	.02900
1.461	3.500	.35490	-1.7520	-.14330	.06650	-.02490	.30200	.00800	.04100	.09200	.03100
1.461	5.560	.36100	-1.7730	-.23600	.10580	-.04070	.30200	.00800	.04100	.09100	.03300
1.461	7.730	.36890	-1.8260	-.33440	.14310	-.05540	.29900	.00900	.04300	.09100	.03600
1.461	9.760	.37760	-1.9140	-.43570	.18780	-.06880	.29100	.00900	.04600	.09600	.04000
1.461	-.700	.34180	-1.6910	-.02380	-.01020	.00240	.29700	.00800	.03900	.09900	.02800
1.461	GRADIENT	.00075	-.00076	-.00468	.01837	-.002670	-.00385	.00100	.00495	-.00133	.00024

06810077 (28 JUN 73)

TABULATED SOURCE DATA MSFC TWT-566

MSFC 155 (24312) MCR 0074 LV 03 19 53

DATE 25 AUG 73

PARAMETRIC DATA

ALPHA = 5.000 CONFID = 1.000
DELTA = .000 ORDER = .000
X-STD = .000 ORIGIN = .000

REFERENCE DATA

SREF = 6.1980 SB. IN YREF = 2.5490 IN.
LREF = 5.3130 IN. YREF = .0000 IN.
BREF = 5.3130 IN. ZREF = .0000 IN.
SCALE = .0000

RUN NO. 101/ 0 RVL = 4.57 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	ON	CLM	CY	CYN	CBL	CAF	CBO	CABO	CABS	CABE
2.990	-10.830	.1990	-.03880	.39560	-.16500	.05110	.25500	.01300	.01200	.02900	.01400
2.990	-8.870	.1890	-.07970	.31290	-.13210	.04020	.25400	.00300	.01700	.02900	.01200
2.990	-6.820	.1820	-.06920	.23350	-.09910	.02920	.25000	.00300	.01600	.03100	.01100
2.990	-4.810	.1750	-.06270	.15360	-.06350	.01980	.24800	.00300	.01500	.03200	.00900
2.990	-2.710	.1720	-.06070	.07790	-.03000	.00980	.24300	.00300	.01500	.03200	.01100
2.990	-.690	.1710	-.05770	.01370	-.01340	.00110	.24500	.00300	.01500	.03200	.01100
2.990	1.370	.1710	-.06010	-.04940	.02010	-.01820	.24700	.00300	.01600	.03100	.01000
2.990	3.430	.18300	-.06420	-.12160	.03150	-.01750	.24700	.00300	.01700	.02900	.00900
2.990	5.430	.19560	-.07250	-.19810	.08660	-.02760	.25300	.00300	.01700	.03000	.01200
2.990	7.520	.21260	-.08300	-.28090	.12200	-.03850	.25300	.00300	.01800	.02900	.01200
2.990	9.460	.22460	-.09620	-.36090	.15280	-.04980	.25400	.00300	.01800	.03200	.01200
2.990	-.690	.1710	-.05710	.01620	-.03460	.00160	.24400	.00300	.01500	.03200	.01100
2.990	GRADIENT	.00101	-.02015	-.03297	.01363	-.01449	.00110	-.00000	.00010	-.00010	.00005

RUN NO. 102/ 0 RVL = 7.10 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	ON	CLM	CY	CYN	CBL	CAF	CBO	CABO	CABS	CABE
3.480	-10.900	.19330	-.07390	.37640	-.15330	.04940	.24700	.00200	.01300	.02100	.01100
3.480	-8.930	.17580	-.06380	.29910	-.12320	.03930	.24400	.00200	.01300	.02200	.00900
3.480	-6.860	.16080	-.05460	.21860	-.09020	.02860	.23900	.00200	.01200	.02300	.00800
3.480	-4.820	.15520	-.04680	.14670	-.05960	.01920	.23600	.00200	.01200	.02300	.00700
3.480	-2.790	.15450	-.04590	.07990	-.03120	.00690	.23200	.00200	.01100	.02400	.00700
3.480	-.700	.15560	-.04670	.01750	-.00480	.00130	.23100	.00200	.01100	.02400	.00700
3.480	1.370	.19970	-.04770	-.04750	.02070	-.00790	.23200	.00200	.01100	.02300	.00700
3.480	3.490	.16380	-.05200	-.11430	.04810	-.01640	.23500	.00200	.01200	.02100	.00700
3.480	5.470	.17650	-.05870	-.18280	.07760	-.02630	.23900	.00200	.01300	.02000	.00800
3.480	7.570	.18740	-.06720	-.26250	.11160	-.03700	.24400	.00200	.01300	.02100	.00800
3.480	9.500	.20150	-.07700	-.33710	.14090	-.04730	.24800	.00200	.01400	.02000	.00700
3.480	-.690	.15380	-.04650	.01740	-.00520	.00080	.23200	.00200	.01100	.02300	.00700
3.480	GRADIENT	.00109	-.02040	-.03143	.01294	-.00431	-.00010	-.00000	.00000	.00015	-.00000

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TABULATED SOURCE DATA MSC TAT-566

(R1008) (28 JUN 73)

MSC 566 (IASIF) MCR 0074 LV 03 T9 S3

PARAMETRIC DATA

REFERENCE DATA

SPEF = 6.1980 SR. IN. XMRP = 2.5490 IN.
 LREF = 5.3130 IN. YMRP = .0000 IN.
 BREF = 5.3130 IN. ZMRP = .0000 IN.
 SCALE = .0040

ALPHA = -5.000 CONFIC = 1.000
 DELTAZ = .116 RUDDER = .000
 X-SYS = .000 ONEINC = .500

RUN NO. 98/ 0 RVL = 6.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CEL	CAF	CNO	CDO	CAS	CASE
.899	-10.980	-31510	.08950	.49720	-.22520	.05820	.01400	.01100	.05500	.13400	.07500
.899	-8.970	-30670	.08350	.41480	-.19820	.04890	.08600	.01100	.05300	.12700	.07200
.899	-6.890	-29770	.08160	.32690	-.16820	.03750	.09500	.01000	.05000	.12200	.06800
.899	-4.870	-30140	.08420	.24140	-.11830	.02750	.11600	.01000	.05000	.11300	.06400
.899	-2.760	-31130	.09880	.14390	-.06930	.01570	.11800	.01000	.05000	.10300	.06200
.899	-.710	-31570	.10840	.03720	-.01420	.00360	.12300	.01000	.05000	.09800	.05700
.899	3.380	-31020	.11610	-.07180	.04380	-.00870	.12600	.01000	.05100	.09700	.05700
.899	3.450	-30130	.09300	-.11670	.09220	-.01910	.12800	.01100	.05200	.09600	.06200
.899	5.490	-28840	.08050	-.26430	.13640	-.03010	.11900	.01100	.05300	.09800	.07800
.899	7.620	-28170	.07680	-.35060	.17570	-.03980	.11500	.01100	.05400	.09900	.08100
.899	9.530	-26630	.07730	-.42850	.20700	-.04920	.11200	.01200	.05400	.10100	.08700
.899	11.710	-31700	.10910	.03780	-.01460	.02290	.12100	.01000	.05100	.10000	.05100
.899		.00000	.00120	-.04972	.02570	-.00566	.00250	.00010	.00000	-.00193	-.00000

GRADIENT

RUN NO. 97/ 0 RVL = 6.59 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CEL	CAF	CNO	CDO	CAS	CASE
1.051	-11.060	-31280	.10100	.52630	-.24090	.16780	.18800	.01100	.05200	.14100	.06600
1.051	-9.050	-31020	.11130	.42680	-.20190	.05450	.19800	.01100	.05500	.13600	.06700
1.051	-6.940	-30770	.10700	.35360	-.16590	.04190	.21100	.01100	.05300	.13000	.06400
1.051	-4.880	-30990	.10490	.24190	-.12460	.02890	.21700	.01100	.05200	.12600	.06200
1.051	-2.760	-31160	.11310	.13980	-.07220	.01620	.22300	.01100	.05200	.11900	.05800
1.051	-.710	-31780	.12170	.03260	-.01390	.00760	.23500	.01100	.05300	.11200	.05200
1.051	1.470	-31260	.11820	-.00340	.04510	-.00910	.24200	.01100	.05400	.10500	.05500
1.051	3.470	-30290	.11030	-.17520	.09690	-.02120	.23900	.01100	.05400	.10100	.06200
1.051	5.510	-29150	.09980	-.27340	.14590	-.03560	.24000	.01100	.05500	.09800	.06400
1.051	7.640	-28050	.09960	-.36720	.18590	-.04800	.23600	.01200	.05700	.10400	.06600
1.051	9.620	-29170	.09980	-.46010	.22180	-.06060	.22900	.01200	.05900	.10600	.06800
1.051	11.950	-31560	.11950	.03580	-.01620	.00370	.24200	.01100	.05300	.11300	.05100
1.051		.00000	.00000	-.05035	.02686	-.00602	.00000	.00000	.00000	-.00307	-.00000

GRADIENT

DATE 25 AUG 73

IR81008 (28 JUN 73)

IR81008 (28 JUN 73)

PARAMETRIC DATA

ALPHA = -5.000
DELTA Z = .136
X-S D = .000

REFERENCE DATA

SREF = 6.1980 SQ. IN
LREF = 5.3130 IN.
BREF = 5.3130 IN.
SCALE = .0060

GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	CN	CLM	CY	CYN	CEL	CAF	CDO	CAD	CBS	CSE
1.248	-11.180	-31950	.07890	.52000	-.21890	.06770	.24100	.01100	.05500	.13100	.06800
1.248	-9.120	-31400	.07940	.41580	-.18180	.05450	.24870	.01100	.05400	.12900	.06800
1.248	-7.020	-31510	.08460	.31610	-.14370	.04140	.24870	.01100	.05300	.12900	.06800
1.248	-4.920	-31350	.08910	.22170	-.10240	.02900	.25800	.01100	.05200	.12900	.06800
1.248	-2.780	-31400	.09730	.12450	-.05630	.01610	.26270	.01100	.05100	.12900	.06800
1.248	-7.15	-31740	.10150	.02360	-.00560	.00280	.26370	.01100	.05000	.12900	.06800
1.248	3.400	-31840	.09940	-.08060	.04700	-.01110	.27100	.01100	.04900	.12900	.06800
1.248	3.480	-29970	.09040	-.17570	.09180	-.02380	.27400	.01100	.04800	.12900	.06800
1.248	5.950	-29330	.08290	-.27350	.13660	-.03810	.28000	.01100	.04700	.12900	.06800
1.248	7.710	-29010	.07910	-.37360	.17550	-.05140	.27100	.01100	.04600	.12900	.06800
1.248	9.740	-28520	.07490	-.46800	.21010	-.06410	.26500	.01100	.04500	.12900	.06800
1.248	-7.70	-31700	.10130	.02340	-.00520	.00220	.26400	.01100	.04400	.12900	.06800
1.248	GRADIENT	.00150	.00203	-.04766	.02344	-.00633	.00195	.00200	.00124	-.00133	.00100

GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	CN	CLM	CY	CYN	CEL	CAF	CDO	CAD	CBS	CSE
1.456	-11.230	-35010	.10520	.53300	-.22900	.06480	.28200	.01600	.03800	.10200	.05200
1.456	-9.190	-34810	.10470	.42660	-.18980	.05170	.26770	.01600	.04300	.10100	.05200
1.456	-7.090	-34540	.10700	.32300	-.14830	.03770	.27700	.01600	.04300	.10100	.05200
1.456	-4.960	-34580	.11200	.22200	-.10150	.02470	.28200	.01600	.03900	.09800	.05200
1.456	-2.790	-34620	.11610	.12020	-.05630	.01310	.28300	.01600	.03700	.09800	.05200
1.456	-7.70	-34440	.11610	.02640	-.01310	.00270	.28100	.01600	.04000	.09800	.05200
1.456	1.440	-33640	.11220	-.06750	.03260	-.00790	.28400	.01600	.04000	.09800	.05200
1.456	3.540	-33330	.11010	-.16190	.07670	-.01930	.29100	.01600	.04100	.09800	.05200
1.456	5.640	-32420	.10150	-.25880	.12020	-.03140	.28600	.01600	.04300	.09800	.05200
1.456	7.790	-31980	.09760	-.36570	.16610	-.04580	.28300	.01600	.04500	.09800	.05200
1.456	9.870	-31350	.09270	-.46790	.20360	-.05980	.28300	.01600	.03800	.09800	.05200
1.456	-7.70	-34340	.11530	.02700	-.01210	.00170	.28300	.01600	.03800	.09800	.05200
1.456	GRADIENT	.00164	-.00236	-.04481	.02091	-.00513	.00189	-.00200	.00014	-.00004	.00000

TABULATED SOURCE DATA MSFC TC-566

DATE 25 AUG 73

REVISION 128 JUN 73

MSFC 566 (1A31C) MCR 1074 LV 03 73 83

REFERENCE DATA

SREF = 6.1980 IN. XMRP = 2.5497 IN.
LREF = 5.3130 IN. YMRP = 1.0000 IN.
PREF = 5.3130 IN. ZMRP = 1.0000 IN.
SCALE = 1.0000

ALPHA = -5.0000 CONFG = 1.0000
DELTAZ = 1.136 ROTTER = 1.0000
X-STD = 1.0000 ORING = 1.0000

PARAMETRIC DATA

RUN NO. 104/ 0 SNL = 4.56 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CN	CLM	CY	CYN	CBL	CAF	CNO	CBO	CBS	CAB
2.990	-10.850	-29540	.11490	.33220	-.17710	.14790	.27200	.00200	.00300	.03300	.01300
2.990	-8.900	-29260	.11370	.34020	-.13970	.13670	.26400	.00200	.01300	.03300	.01300
2.990	-6.820	-29210	.11400	.25430	-.10360	.12630	.25900	.00300	.01500	.03200	.01500
2.990	-4.810	-28640	.11270	.17530	-.07360	.11680	.25600	.00300	.01500	.03200	.01500
2.990	-2.710	-28270	.10910	.05410	-.03940	.10780	.25400	.00300	.01400	.03200	.01400
2.990	-.680	-28150	.10680	.00970	-.00260	.10700	.25100	.00300	.01500	.03300	.01400
2.990	1.470	-27770	.10640	-.07570	.03560	-.04780	.25400	.00300	.01500	.03300	.01400
2.990	3.430	-27650	.10740	-.11580	.06920	-.01640	.25800	.00300	.01500	.03300	.01500
2.990	5.460	-27540	.10830	-.23580	.10190	-.02630	.25900	.00300	.01600	.03300	.01600
2.990	7.540	-26990	.10540	-.32170	.13620	-.03660	.26400	.00300	.01600	.03300	.01600
2.990	9.490	-27120	.10390	-.43780	.17130	-.04750	.26800	.00300	.01700	.03300	.01700
2.990	-.690	-28140	.10840	.01430	-.00400	.10010	.25100	.00300	.01500	.03300	.01400
2.990	GRADIENT	.00121	-.00065	-.04050	.01755	-.00399	-.00000	-.00000	.00005	-.00014	-.00015

RUN NO. 103/ 0 SNL = 7.09 GRADIENT INTERVAL = -5.00/ 5.00

WACH	BETA	CN	CLM	CY	CYN	CBL	CAF	CNO	CBO	CBS	CAB
3.480	-10.930	-29180	.12020	.42800	-.17860	.14550	.27900	.00200	.00300	.02500	.01300
3.480	-8.960	-28710	.11750	.33930	-.14150	.13560	.26600	.00200	.00900	.02500	.01200
3.480	-6.890	-28540	.11630	.25520	-.10620	.12590	.26700	.00200	.01100	.02500	.01100
3.480	-4.840	-27780	.11280	.17570	-.07520	.10680	.25600	.00200	.01100	.02500	.01100
3.480	-2.790	-27340	.10820	.09430	-.04090	.10780	.25300	.00200	.01100	.02500	.01100
3.480	-.690	-27260	.10740	.01410	-.00430	.10720	.24800	.00200	.01100	.02500	.01100
3.480	1.390	-26660	.10460	-.07120	.03290	-.00780	.25000	.00200	.01100	.02500	.01100
3.480	3.470	-26740	.10890	-.15160	.06870	-.01640	.25500	.00200	.01100	.02500	.01100
3.480	5.500	-26850	.10990	-.23030	.10080	-.02530	.25800	.00200	.01200	.02500	.01100
3.480	7.530	-26960	.10990	-.31600	.13580	-.03540	.26500	.00200	.01200	.02500	.01200
3.480	9.520	-26730	.11020	-.39740	.16990	-.04520	.27000	.00200	.01200	.02500	.01200
3.480	-.690	-27420	.10720	.01410	-.00510	.10000	.24800	.00200	.01100	.02500	.01100
3.480	GRADIENT	.00134	-.00059	-.03950	.01742	-.00395	-.00010	.00000	.00000	-.00010	-.00010

DATE 25 AUG 73

TABULATED SOURCE DATA MSC DWT-566

MSC 566 (IASIF) CLR 0074 LV 00 19 82

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(R81009) (28 JUN 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1980 SQ. IN. WREF = 2.5490 IN.
 LREF = 5.3130 IN. WREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 CONFIG = 1.000
 VELAD = .136 BODDER = .000
 W-SEE = .400 ORDINC = .000

RUN NO. 65/ 0 RVL = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CEL	CAF	COO	COO	CABS	CASE
.999	-11.150	-63390	.23760	-.02210	.00910	.00020	.07520	.00000	.00000	.11600	.03500
.999	-9.150	-51110	.16100	-.01620	.00740	.00000	.09220	.00000	.00000	.10800	.02700
.999	-7.030	-39950	.11930	-.01580	.00580	.00000	.09500	.00000	.00000	.10700	.02600
.999	-5.030	-28120	.07290	-.01660	.00330	.00000	.09200	.00000	.00000	.10400	.02200
.999	-2.940	-16330	.02530	-.01220	.00180	.00000	.07500	.00000	.00000	.10300	.02000
.999	-.890	-.04340	-.02430	-.01140	.00140	.00000	.07600	.00000	.00000	.10500	.01800
.999	1.240	.08380	-.07750	-.00890	.00550	.00140	.09920	.00000	.00000	.10400	.01200
.999	3.370	.25310	-.11090	-.00950	.00580	.00120	.09920	.00000	.00000	.10400	.01200
.999	5.360	.33120	-.11910	-.00620	.00240	.00240	.08120	.00000	.00000	.10700	.01600
.999	7.450	.45670	-.21070	-.00320	.00380	.00370	.08120	.00000	.00000	.11400	.02000
.999	9.420	.57930	-.26990	-.00260	.00470	.00280	.07200	.00000	.00000	.10300	.01800
.999	-.890	-.03790	-.02640	-.00490	.00460	.00120	.09800	.00000	.00000	.10300	.01800
.999		.05911	-.02179	.00148	-.00128	.00019	-.00087	.00000	.00000	.00000	-.00000

GRADIENT

RUN NO. 64/ 0 RVL = 6.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CLM	CY	CYN	CEL	CAF	COO	COO	CABS	CASE
.900	-11.540	-73170	.25630	-.03530	.02320	-.00090	.11020	.00200	.00200	.12100	.05400
.900	-9.480	-57760	.19570	-.03750	.02150	-.00330	.11900	.00100	.00100	.11700	.04800
.900	-7.310	-44250	.14750	-.03120	.01810	-.00240	.13320	.00100	.00100	.11000	.03000
.900	-5.180	-31510	.09930	-.02680	.01650	-.00280	.13700	.00100	.00100	.10400	.03000
.900	-3.020	-18730	.05500	-.02010	.01220	-.00230	.14200	.00100	.00100	.10900	.02700
.900	-.910	-.05780	-.00340	-.02050	.01300	-.00270	.14200	.00000	.00000	.10800	.02300
.900	1.240	.07810	-.06410	-.01990	.01270	-.00140	.13900	.00000	.00000	.10500	.02000
.900	3.370	.21430	-.12580	-.01940	.01290	-.00170	.13900	.00100	.00100	.11200	.02500
.900	5.490	.35070	-.17820	-.01490	.01110	-.00080	.14700	.00100	.00100	.11400	.02300
.900	7.630	.48630	-.24180	-.01280	.01090	-.00020	.13700	.00100	.00100	.11100	.01800
.900	9.680	.61530	-.29460	-.01470	.01220	.00000	.13400	.00100	.00100	.10500	.02800
.900	-.900	-.05230	-.00180	-.01620	.01150	-.00180	.14600	.00100	.00100	.10300	.02800
.900		.06289	-.02773	.00013	.00008	.00011	-.00038	-.00005	-.00005	.00000	-.00000

GRADIENT

DATE 25 AUG 75

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (IASIF) MCR 5074 LV 08 T9 S3

(R81009) (28 JUN 73)

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REFERENCE DATA

SREF = 6.1985 SQ. IN XMRP = 2.5490 IN.
 LREF = 5.3130 IN. YMRP = .0000 IN.
 DREF = 5.3130 IN. ZMRP = .0000 IN.
 SCALE = .0740

PARAMETRIC DATA

BETA = .000 CONFIG = 1.000
 DELTAZ = .156 RUDDER = .000
 X-SRS = .400 ORDNCE = .500

RUN NO. 63/ 0 RVL = 6.48 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CBL	CAF	CNO	CASO	CABS	CASE
1.047	-11.680	-79350	.29600	-.02200	.01220	-.00180	.22400	.01300	.06300	.14500	.05700
1.047	-9.550	-31670	.22340	-.01860	.01100	-.00160	.23300	.01300	.06300	.14500	.05700
1.047	-7.360	-45590	.15700	-.01480	.00900	-.00180	.24000	.01300	.06300	.14500	.05700
1.047	-5.210	-30770	.09700	-.01060	.00900	-.00150	.24900	.01300	.06300	.14500	.05700
1.047	-3.030	-16140	.03450	-.00870	.00800	-.00120	.25700	.01300	.06300	.14500	.05700
1.047	-.900	-.03840	-.00950	-.00760	.00710	-.00140	.25500	.01300	.06300	.14500	.05700
1.047	1.280	.05550	-.02800	-.00380	.00710	-.00120	.24300	.01300	.06300	.14500	.05700
1.047	3.420	.19940	-.09880	-.00180	.00690	-.00100	.23200	.01300	.06300	.14500	.05700
1.047	5.530	.34530	-.16640	.00290	.00530	.00100	.23000	.01300	.06300	.14500	.05700
1.047	7.740	.49980	-.23340	.00420	.00370	.00180	.23000	.01300	.06300	.14500	.05700
1.047	9.760	.63330	-.29790	.00540	.00260	.00240	.23000	.01300	.06300	.14500	.05700
1.047	-.900	-.04400	-.00440	-.00490	.00740	-.00190	.25400	.01300	.06300	.14500	.05700
1.047	.05462	-.01933	-.01933	.00162	-.00063	.00025	-.00247	-.00014	-.00051	-.00046	-.00024

WACH	ALPHA	ON	CLM	CY	CYN	CBL	CAF	CNO	CASO	CABS	CASE
1.249	-11.840	-87720	.27620	-.02940	.01170	-.00220	.25670	.01100	.05400	.12300	.06200
1.249	-9.670	-61880	.20460	-.02300	.00970	-.00240	.26200	.01100	.05400	.12300	.06200
1.249	-7.440	-44460	.13990	-.01730	.00850	-.00170	.26400	.01100	.05600	.11800	.04500
1.249	-5.290	-29470	.08700	-.01540	.00880	-.00160	.27400	.01200	.05700	.11600	.04300
1.249	-3.040	-16150	.04220	-.01370	.00840	-.00180	.27800	.01200	.05700	.11600	.04300
1.249	-.870	-.02500	-.00780	-.00930	.00680	-.00110	.28400	.01200	.05700	.11600	.04300
1.249	1.340	.10150	-.00660	-.00700	.00670	-.00090	.28100	.01200	.05800	.11900	.04600
1.249	3.470	.21780	-.09750	-.00610	.00710	-.00080	.27100	.01200	.05800	.11900	.04600
1.249	5.700	.34400	-.15330	-.00120	.00450	-.00090	.26800	.01200	.05900	.12200	.04800
1.249	7.820	.47580	-.20940	.00230	.00310	-.00170	.26300	.01200	.06000	.12700	.04800
1.249	9.850	.59430	-.24950	.00480	.00320	-.00110	.25700	.01200	.06000	.11600	.04700
1.249	-.870	-.02640	-.00650	-.00700	.00740	-.00160	.28300	.01200	.05700	.11600	.04700
1.249	.05817	-.02124	-.02124	.00116	-.00022	-.00013	-.00010	-.00000	.00014	.00041	-.00038

GRADIENT

DATE 25 AUG 73

TABULATED SOURCE DATA MFC DAT-545

MFC 365 (1A31F) MCR 5074 LV ON 79 53

(R81779) (22 JUN 73)

PAGE 37

REFERENCE DATA

SREF = 6.1980 SQ. IN. XREF = 2.5495 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0020

BETA = .001 C.A.P.T. = 1.000
 WFLTAZ = .336 RIDDER = .000
 X-STD = .433 DRING = .500

PARAMETRIC DATA

RUN NO. 41/ 0 RVL = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	CN	CLM	CY	CYN	CLL	CAF	CDO	CDO	CAS	CASE
1.460	-11.860	-89870	.28220	-.02960	.01320	-.00000	.27000	.00000	.04200	.09800	.05300
1.460	-9.720	-61580	.20570	-.02270	.01120	-.00260	.27600	.00000	.04400	.09800	.05300
1.460	-7.490	-44890	.13840	-.01900	.00990	-.00230	.28400	.00000	.04300	.09800	.05300
1.460	-5.350	-29150	.07860	-.01540	.00820	-.00270	.29100	.00000	.04300	.09800	.05300
1.460	-3.180	-14870	.02580	-.01250	.00680	-.00280	.29800	.00000	.04200	.09800	.05300
1.460	-.890	-01570	-.02140	-.00950	.00530	-.00270	.30500	.00000	.04200	.09800	.05300
1.460	3.460	.22480	-.01530	-.00680	.00380	-.00240	.31200	.00000	.04200	.09800	.05300
1.460	5.620	.34460	-.01340	-.00430	.00250	-.00200	.31900	.00000	.04200	.09800	.05300
1.460	7.870	.44750	-.01040	-.00200	.00140	-.00150	.32600	.00000	.04200	.09800	.05300
1.460	9.810	.56330	-.00730	-.00180	.00080	-.00120	.33300	.00000	.04200	.09800	.05300
1.460	GRADIENT	.05712	-.00485	.00126	-.00042	.00000	.34000	.00000	.04200	.09800	.05300

RUN NO. 32/ 0 RVL = 6.88 GRADIENT INTERVAL = -5.00/ 5.00

MACI	ALPHA	CN	CLM	CY	CYN	CLL	CAF	CDO	CDO	CAS	CASE
1.955	-11.930	-77670	.26910	-.01600	.03810	-.00270	.30900	.00600	.02000	.06200	.03100
1.955	-9.790	-61460	.20460	-.01480	.02780	-.00250	.30000	.00600	.02000	.06200	.02900
1.955	-7.960	-45490	.14060	-.01370	.02600	-.00270	.30900	.00600	.02000	.06200	.02700
1.955	-5.360	-30560	.08970	-.01020	.02630	-.00220	.31300	.00600	.02000	.06200	.02400
1.955	-3.130	-16950	.03820	-.00680	.02470	-.00200	.31900	.00600	.02000	.06200	.02100
1.955	-.820	-03530	-.01000	-.00530	.02440	-.00200	.32300	.00600	.02000	.06200	.01900
1.955	1.310	.09800	-.05990	.00480	.02440	-.00210	.32300	.00600	.02000	.06200	.01700
1.955	3.490	.22060	-.10490	.00320	.02350	-.00230	.32400	.00600	.02000	.06200	.01500
1.955	5.640	.33810	-.15030	.00140	.02140	-.00230	.32100	.00600	.02000	.06200	.01300
1.955	7.890	.45970	-.19350	-.00040	.02100	-.00170	.31600	.00600	.02000	.06200	.01100
1.955	9.930	.58670	-.23400	-.00130	.02080	-.00180	.32100	.00600	.02000	.06200	.00900
1.955	GRADIENT	.04000	-.00750	-.00760	.00720	-.00230	.30700	.00600	.02000	.06200	-.00150

DATE 23 AUG 73

TABULATED SOURCE DATA MSFC TWT-566

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MSFC 566 (A31F) MCR 0074 LV 03 19 53

(R01009) 1 28 JUN 73

REFERENCE DATA

SREF = 6.980 SQ. IN XREF = 2.5495 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 DREF = 5.3130 IN. ZREF = .0020 IN.
 SCALE = .0040

PARAMETRIC DATA

BETA = .000 CONFID = 1.000
 DELTA Z = .136 RLODR = .000
 X-SRB = .400 ORDINC = .500

RUN NO. 22/ 0 RNVL = 5.00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	CBL	CAF	CNSO	CASO	CASS	CASE
4.959	-0.950	-4.8310	.17340	-.00710	.00530	-.00290	.30400	.00000	.00000	.00000	.00000
4.959	-6.980	-4.1090	.14800	-.00680	.00470	-.00230	.28700	.00000	.00000	.00000	.00000
4.959	-6.960	-3.2970	.12790	.00120	.00210	-.00150	.27600	.00000	.00000	.00000	.00000
4.959	-4.920	-.26030	.10660	.00150	.00180	-.00150	.26300	.00000	.00000	.00000	.00000
4.959	-2.890	-.19180	.08720	-.00120	.00140	-.00150	.25800	.00000	.00000	.00000	.00000
4.959	1.270	-.04670	.06730	.00390	.00180	-.00170	.25300	.00000	.00000	.00000	.00000
4.959	3.210	.03810	.04560	.00240	.00140	-.00170	.24600	.00000	.00000	.00000	.00000
4.959	5.250	.12230	.02130	.00280	.00260	-.00250	.23100	.00000	.00000	.00000	.00000
4.959	7.290	.21670	-.00020	.00730	-.00090	.00220	.22200	.00000	.00400	.00000	.00000
4.959	9.220	.29080	-.08090	.00520	-.00140	-.00140	.21700	.00000	.00000	.00000	.00000
4.959	-1.870	-.11130	.06260	.00190	.00120	-.00150	.25400	.00000	.00000	.00000	.00000
GRADIENT		.03654	-.01115	.00211	-.00210	-.00013	-.00205	.00000	.00000	.00000	.00000

DATE 25 AUG 73

*CALCULATED SOURCE DATA NSFC TWT-556

PAGE 39

(R81010) (26 JUN 73)

NSFC 566 (TABLE) MCR 0074 LV 08 Y9 S3

REFERENCE DATA

REF = 6.1980 SQ. IN. WREF = 2.5490 IN.
 LREF = 5.3130 IN. WREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 CONFID = 1.000
 DELTA = .136 RUDDER = .000
 Y-STE = .400 ORBING = .500

RUN NO. 73/0 RV/L = 4.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CSD	CAD	CAS	CASE
.601	-10.810	-.00780	-.05680	.41830	-.17930	.06030	.07200	.01100	.05300	.12300	.02900
.601	-8.890	-.00620	-.05740	.34780	-.15200	.05190	.08700	.01100	.05100	.11700	.02100
.601	-6.810	-.00390	-.05590	.27620	-.12340	.04180	.09800	.01020	.04000	.11400	.02100
.601	-4.790	-.00890	-.04840	.19910	-.09130	.03130	.10000	.01000	.03800	.11000	.02100
.601	-2.790	-.01890	-.03990	.11320	-.05190	.01930	.10000	.01000	.03800	.10200	.02100
.601	-.890	-.02430	-.03260	.02770	-.01260	.00670	.10000	.01000	.03800	.10300	.02100
.601	1.390	-.01990	-.03470	-.07440	.03590	-.00790	.10000	.01000	.03800	.10000	.02100
.601	3.430	-.01010	-.04240	-.15980	.07390	-.02850	.10000	.01000	.03800	.10200	.02100
.601	5.430	.02220	-.05140	-.23750	.10900	-.03230	.10000	.01000	.03800	.10500	.02100
.601	7.430	.00920	-.05370	-.31530	.14270	-.04240	.10000	.01000	.03800	.10700	.02100
.601	9.430	.01610	-.05780	-.38720	.17120	-.05240	.10000	.01000	.03800	.10900	.02100
.601	-.690	-.02460	-.03490	.02970	-.01180	.00620	.10000	.01000	.03800	.10000	.02100
.601		-.07009	.02387	-.04404	.02124	-.00836	.10000	.01000	.03800	.10141	.02100

RUN NO. 72/0 RV/L = 6.18 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	ON	CLM	CY	CYN	CBL	CAF	CSD	CAD	CAS	CASE
.903	-10.960	-.00990	-.03170	.47070	-.21370	.06530	.10000	.01200	.05900	.12800	.03900
.903	-8.960	-.02990	-.03640	.39970	-.18950	.05590	.12100	.01200	.05700	.12500	.03200
.903	-6.910	-.02230	-.03870	.32850	-.15910	.04480	.13500	.01100	.05400	.12300	.02800
.903	-4.860	-.03040	-.02740	.23100	-.11470	.03280	.13800	.01100	.05100	.11600	.02500
.903	-2.770	-.03470	-.01490	.13080	-.06380	.01890	.14300	.01000	.04900	.10400	.02200
.903	-.770	-.04800	-.00300	.02380	-.01970	.00400	.14800	.01000	.04900	.10200	.02000
.903	1.380	-.04140	-.02670	-.07510	.04180	-.02370	.15000	.01000	.04900	.10100	.01700
.903	3.470	-.03110	-.01970	-.18040	.09430	-.02430	.15200	.01000	.04900	.10400	.03600
.903	5.970	-.01310	-.03440	-.27330	.13730	-.03600	.14700	.01000	.05000	.10600	.04300
.903	7.570	-.00320	-.04250	-.35840	.17560	-.04780	.13900	.01200	.05700	.10600	.04200
.903	9.560	-.00930	-.03890	-.43180	.20710	-.05990	.13000	.01200	.05100	.10500	.03800
.903	-.790	-.04280	-.00430	.02460	-.02820	.00370	.14500	.01100	.05100	.10300	.02800
.903		-.00009	.00114	-.04943	.02816	-.01686	.10168	.01000	.05029	.10097	.00088

DATE 25 AUG 73

TRANSFERRED SOURCE DATA NSFC TMT-366

NSFC 566 (1431F) MCR 1274 LV Q3 T9 S3

PARAMETER DATA

ALPHA = .000
DELTA Z = .136
X-S = .400

REFERENCE DATA

SREF = 6.1980 SR. IN
UREF = 5.3135 IN.
BREF = 5.3135 IN.
SCALE = .0045

RUN NO. 42/0 RVL = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CN	CLM	CY	CYN	CBL	CAF	COC	CAD	CAS	CISE
1.461	-11.170	-.01355	-.00090	.51110	-.21120	.07580	.27530	.00000	.00000	.00000	.00000
1.461	-9.140	-.01070	-.02740	.40380	-.16890	.06240	.28470	.00000	.00000	.00000	.00000
1.461	-7.020	-.00530	-.02880	.30350	-.12890	.04740	.29500	.00000	.00000	.00000	.00000
1.461	-4.930	-.00220	-.02550	.20790	-.08740	.03270	.29800	.00000	.00000	.00000	.00000
1.461	-2.810	.00430	-.02770	.11600	-.04820	.01800	.30700	.00000	.00000	.00000	.00000
1.461	-.710	.00940	-.02950	.02910	-.01110	.00400	.31200	.00000	.00000	.00000	.00000
1.461	1.410	.01330	-.03040	-.00590	.02510	-.01010	.30500	.00000	.00000	.00000	.00000
1.461	3.515	.02460	-.03070	-.14100	.06200	-.02380	.30600	.00000	.00000	.00000	.00000
1.461	5.690	.01840	-.03240	-.23860	.10430	-.03940	.30900	.00000	.00000	.00000	.00000
1.461	7.710	.02180	-.03600	-.33170	.14220	-.05360	.30600	.00000	.00000	.00000	.00000
1.461	9.710	.02720	-.04080	-.42760	.17920	-.06700	.30200	.00000	.00000	.00000	.00000
1.461	-.710	.01960	-.03000	-.03160	-.01280	.00390	.30200	.00000	.00000	.00000	.00000
1.461	GRADIENT	.02252	-.03065	-.04118	-.01764	-.00669	.31181	.00000	.00000	.00000	.00000

RUN NO. 29/0 RVL = 6.83 GRADIENT INTERVAL = -5.00/ 5.00

MAOH	BETA	CN	CLM	CY	CYN	CBL	CAF	COC	CAD	CAS	CISE
1.955	-11.290	.00290	-.03060	.51950	-.21590	.06920	.33200	.00000	.00000	.00000	.00000
1.955	-9.180	-.00320	-.02220	.41140	-.17320	.05520	.33600	.00000	.00000	.00000	.00000
1.955	-7.090	.00190	-.01950	.30960	-.13230	.04150	.36400	.00000	.00000	.00000	.00000
1.955	-4.940	-.00620	-.01450	.20970	-.09140	.02680	.34500	.00000	.00000	.00000	.00000
1.955	-2.820	-.01120	-.01770	.11440	-.04820	.01390	.33800	.00000	.00000	.00000	.00000
1.955	-.710	-.02290	-.02150	.02870	-.01120	.00200	.32400	.00000	.00000	.00000	.00000
1.955	1.420	-.00400	-.02000	-.00890	.02600	-.01800	.32400	.00000	.00000	.00000	.00000
1.955	3.510	-.00740	-.02000	-.14590	.06340	-.02030	.33000	.00000	.00000	.00000	.00000
1.955	5.620	.00710	-.02210	-.24180	.10960	-.03360	.32700	.00000	.00000	.00000	.00000
1.955	7.770	.00600	-.02760	-.33830	.14490	-.04770	.32500	.00000	.00000	.00000	.00000
1.955	9.790	.01410	-.03440	-.43740	.18430	-.06160	.32500	.00000	.00000	.00000	.00000
1.955	GRADIENT	.01570	-.01540	-.02810	-.00980	.00170	.30500	.00000	.00000	.00000	.00000

TABULATED SOURCE DATA NSFC TMT-566

DATE 25 AUG 73

(08:00) (28 JUN 73)

NSFC 566 (IASIF) MCR 0074 LV 08 19 53

REFERENCE DATA

SREF = 6.1985 SQ. IN XREF = 2.5495 IN.
LREF = 5.3130 IN. YREF = .0000 IN.
BREF = 5.3130 IN. ZREF = .0000 IN.
SCALE = .0040

PARAMETRIC DATA

ALPHA = .000 CONF16 = 1.000
DELTAZ = .135 RUDDER = .000
X-SES = .400 ORBITAL = .500

RUN NO. 21/ 0 RNL = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

NACH	ETA	CN	CLM	CY	CYN	CEL	CAF	CBO	CASO	CAS	CASE
4.959	-10.710	-0.9625	.05380	.36200	-0.15480	.04380	.27200	.00000	.00400	.00710	.00200
4.959	-8.780	-0.8530	.04870	.28470	-0.11840	.03340	.26500	.00000	.00400	.00700	.00200
4.959	-6.740	-0.8580	.05150	.21490	-0.08750	.02370	.25900	.00000	.00400	.00680	.00200
4.959	-4.710	-0.6060	.05500	.14310	-0.05850	.01490	.25500	.00000	.00400	.00670	.00200
4.959	-2.690	-0.09120	.05610	.07930	-0.03070	.00710	.25200	.00000	.00400	.00660	.00200
4.959	-.690	-0.6780	.05850	.02530	-0.00790	.00130	.25200	.00000	.00300	.00600	.00200
4.959	1.370	-0.0260	.06010	-0.03660	.01640	-0.0510	.25100	.00000	.00300	.00590	.00200
4.959	3.370	-0.0890	.05790	-0.10050	.04150	-0.01270	.25000	.00000	.00400	.00580	.00200
4.959	5.400	-0.0820	.05420	-0.16230	.06860	-0.01980	.25000	.00000	.00400	.00570	.00200
4.959	7.420	-0.0820	.05010	-0.23600	.09870	-0.02940	.25000	.00000	.00400	.00560	.00200
4.959	9.350	-0.0700	.04880	-0.30570	.12950	-0.03930	.26400	.00000	.00400	.00550	.00200
4.959	-.690	-0.09170	.05970	.02520	-0.00740	.00100	.25100	.00000	.00300	.00540	.00200
4.959			.02048	-0.02983	.01222	-0.00329	-0.00140	.00000	-0.0015	.00010	-0.00015

GRADIENT

DATE 23 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

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0801011 (26 JUN 73)

NSFC 566 (1A31F) MCR 1074 LV 03 TS 53

REFERENCE DATA

SREF = 6.1940 IN XREF = 2.5491 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA =
 DELTAZ =
 X-SSE =

.000 COMPIC = .000
 .136 RUDDER = -10.000
 .000 ORBINC = .900

PARAMETRIC DATA

RUN NO. 66/ 0 RVL = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	COL	CAF	CNO	CBO	CBS	CABE
.567	-11.130	-.05160	.24750	-.06370	.04630	-.01480	.07700	.01000	.04800	.10800	.05800
.567	-9.150	-.05040	.19240	-.05630	.04300	-.01510	.06800	.07900	.04600	.10000	.05000
.567	-7.070	-.04710	.13970	-.06170	.04720	-.01360	.10100	.10900	.04600	.09700	.04100
.567	-5.050	-.05000	.08950	-.05820	.04570	-.01430	.13200	.01000	.04700	.09800	.03700
.567	-2.940	-.04420	.04110	-.05060	.04310	-.01380	.10500	.07900	.04600	.09800	.03400
.567	-.890	-.04040	-.00960	-.04210	.03640	-.01240	.10700	.07800	.04600	.09400	.03600
.567	1.810	.03910	-.04360	-.04310	.03680	-.01270	.10700	.07800	.04600	.09400	.03600
.567	3.270	.18830	-.10090	-.03980	.03760	-.01130	.09400	.07900	.04600	.09400	.03600
.567	5.360	.30740	-.15430	-.04900	.04010	-.01180	.08900	.07900	.04600	.09400	.03600
.567	7.410	.42560	-.20370	-.04170	.03670	-.01060	.08900	.07900	.04600	.09400	.03600
.567	9.340	.53270	-.26020	-.03730	.03720	-.00980	.07200	.07200	.04600	.09400	.03600
.567	-.860	-.06310	-.00680	-.04650	.04040	-.01330	.10800	.07800	.04600	.09400	.03600
.567	.02661	-.02331	-.00155	.00155	-.00078	.00036	-.00130	.00005	.00005	.00005	-.00005

RUN NO. 67/ 0 RVL = 6.16 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	ON	CLM	CY	CYN	COL	CAF	CNO	CBO	CBS	CABE
.566	-11.460	-.07310	.29220	-.04830	.03510	-.02800	.11600	.01100	.05300	.10900	.06800
.566	-9.380	-.06820	.22630	-.04460	.03340	-.02960	.12100	.01100	.05300	.10900	.06800
.566	-7.270	-.04020	.16980	-.04880	.03180	-.02950	.12800	.01100	.05200	.10900	.06800
.566	-5.170	-.04170	.10960	-.03680	.03000	-.02860	.13200	.01100	.05100	.10800	.06800
.566	-3.050	-.03460	.05430	-.03160	.02870	-.02860	.13400	.01000	.05100	.10800	.06800
.566	-.950	-.04710	-.02230	-.03290	.02790	-.02950	.14200	.01000	.04900	.10700	.06700
.566	1.820	.03440	-.00770	-.02990	.02480	-.02840	.14400	.01000	.04900	.10700	.06700
.566	3.360	.21190	-.12700	-.02640	.02500	-.02800	.13600	.01000	.04900	.10700	.06700
.566	5.480	.34060	-.17720	-.02740	.02680	-.02760	.12900	.01000	.04900	.10700	.06700
.566	7.600	.45960	-.22630	-.02690	.02580	-.02670	.13200	.01000	.04900	.10700	.06700
.566	9.640	.57810	-.27260	-.02211	.02470	-.02680	.12500	.01000	.04900	.10700	.06700
.566	-.900	-.04660	-.00080	-.02630	.02350	-.02670	.14200	.01000	.04900	.10700	.06700
.566	.02694	.00002	-.00002	.00006	-.00006	.00002	.00007	-.00000	-.00000	.00000	-.00000

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (1431F) MCR 0074 LV 05 19 53

(061011) (28 JUN 75)

REFERENCE DATA

SREF = 6.1980 SR. IN YREF = 2.5450 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0040

BETA = .000 CONFID = 1.000
 DELTAZ = .136 SUSSEP = -10.000
 X-SEP = .000 OBSINC = .500

PARAMETRIC DATA

RUN NO. 68/ 0 RVAL = 6.69 GRADIENT INTERVAL = -5.00/ 5.00

WCON	ALPHA	ON	QUN	CY	CYN	CEL	CAF	CBO	CABO	CABS	CABE
1.048	-11.800	-79600	.33600	-.04900	.00900	-.01200	.21200	.01200	.06200	.14000	.07100
1.048	-9.490	-62590	.28290	-.04320	.03670	-.01220	.23100	.01200	.05800	.13200	.06300
1.048	-7.340	-47430	.19740	-.04090	.03320	-.01190	.23700	.01200	.05700	.12900	.05900
1.048	-5.270	-32630	.13190	-.03410	.03120	-.01060	.24400	.01200	.05600	.12400	.05400
1.048	-3.010	-17340	.05890	-.02800	.02720	-.00990	.24900	.01300	.05100	.12200	.05000
1.048	-.890	-.03010	-.01450	-.02280	.02430	-.00890	.24900	.01200	.05000	.12200	.04900
1.048	1.270	.11420	-.06940	-.01920	.02220	-.00800	.24700	.01200	.04900	.11900	.03900
1.048	3.410	.24880	-.14540	-.01400	.01940	-.00790	.23900	.01200	.04800	.12300	.03800
1.048	5.540	.35800	-.18190	-.01280	.01940	-.00780	.24200	.01100	.04600	.12300	.03800
1.048	7.710	.47780	-.22810	-.01020	.02050	-.00720	.23400	.01200	.05700	.13200	.02800
1.048	9.740	.59530	-.27360	-.00840	.01930	-.00630	.22800	.01200	.05800	.13900	.02700
1.048	-.880	-.02870	-.01540	-.02030	.02280	-.00890	.24900	.01200	.06200	.12100	.04800
1.048	GRADIENT	.06300	-.03211	.01212	-.00119	.00036	-.00075	-.00014	-.00047	-.00000	-.00028

RUN NO. 68/ 0 RVAL = 6.60 GRADIENT INTERVAL = -5.00/ 5.00

WCON	ALPHA	ON	QUN	CY	CYN	CEL	CAF	CBO	CABO	CABS	CABE
1.048	-11.780	-82200	.33000	-.05310	.00560	-.01220	.23100	.01100	.05200	.12900	.07200
1.048	-9.610	-63480	.24910	-.04590	.03260	-.01200	.25900	.01100	.05300	.12900	.06800
1.048	-7.480	-48280	.17570	-.03920	.03010	-.01180	.26800	.01100	.05300	.12000	.06400
1.048	-5.320	-31060	.11170	-.03480	.02790	-.01110	.27400	.01100	.05300	.11400	.05900
1.048	-3.000	-16540	.04880	-.03110	.02620	-.01040	.27700	.01100	.05400	.11300	.05800
1.048	-.870	-.01860	-.01320	-.02810	.02490	-.00990	.28400	.01100	.05500	.11200	.05800
1.048	1.310	.11380	-.07470	-.02370	.02470	-.00960	.28100	.01100	.05500	.11300	.05800
1.048	3.470	.24770	-.13320	-.02400	.02460	-.00950	.27900	.01200	.05600	.11800	.04700
1.048	5.600	.37860	-.18700	-.02290	.02540	-.00910	.27900	.01200	.05700	.11700	.04100
1.048	7.770	.50430	-.24820	-.01800	.02340	-.00890	.27100	.01200	.05700	.11800	.03800
1.048	9.820	.63180	-.28710	-.01430	.02210	-.00840	.26400	.01200	.05700	.12200	.03900
1.048	-.870	-.01860	-.01230	-.02740	.02540	-.01000	.28900	.01100	.05900	.11900	.05100
1.048	GRADIENT	.04839	-.02809	.00109	-.00000	.00014	.00014	.00014	.00028	.00048	-.00124

DATE 29 AUG 75

TABULATED SOURCE DATA WSCF TWP-566

PAGE 45

WSCF 566 (TAB1F) HCR 0374 LV 00 TS 53
(R81012) (28 JUN 75)

REFERENCE DATA

SHF = 6.1980 SI. IN. XWSP = 2.5490 IN.
 LWF = 5.3130 IN. YWSP = .0000 IN.
 DWF = 5.3130 IN. ZWSP = .0000 IN.
 SCALE = .0040

PARAMETRIC DATA

MEVA = .000 OACFIS = 3.000
 MEVAC = .136 RUDIES = -1.000
 MEVSE = .000 ONSINC = .500

RUN NO. 43/ 0 RVL = 6.56 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CEL	CAF	CBO	CBS	CASE
1.433	-11.800	-83640	.33670	-.00990	.03660	-.01130	.27800	.03200	.03700	.03900
1.439	-9.650	-85075	.25820	-.04280	.03240	-.01070	.28200	.03300	.03800	.04000
1.453	-7.480	-48150	.182	-.03720	.02980	-.01020	.28500	.03400	.03900	.04100
1.453	-5.250	-31990	.113	-.03290	.02810	-.00960	.28700	.03500	.04000	.04200
1.453	-3.060	-17280	.04810	-.03180	.02750	-.00920	.30200	.04000	.04500	.04700
1.453	-.970	-06870	-.01170	-.02880	.02560	-.00880	.30500	.04200	.04700	.04900
1.453	1.320	.11540	-.06820	-.02590	.02330	-.00830	.30700	.04300	.04800	.05000
1.453	3.400	.22780	-.11540	-.01980	.02030	-.00780	.29700	.04200	.04700	.04900
1.453	5.670	.36190	-.17590	-.01370	.01800	-.00630	.28500	.04000	.04500	.04700
1.453	7.760	.47790	-.22240	-.01210	.01640	-.00580	.28000	.04000	.04500	.04700
1.453	9.800	.59790	-.26810	-.01040	.01570	-.00530	.27500	.04100	.04600	.04800
1.453	-.900	-.02670	-.01230	-.02810	.02570	-.00870	.30500	.04100	.04600	.04800
1.453	GRADIENT	.06148	-.02488	.00168	-.00113	.00017	-.00001	.00028	.00050	-.00090

RUN NO. 31/ 0 RVL = 6.92 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	CN	CLM	CY	CYN	CEL	CAF	CBO	CBS	CASE
1.506	-11.800	-83640	.32720	-.03820	.02450	-.00890	.31200	.02500	.06200	.03700
1.506	-8.730	-64300	.24910	-.03040	.02330	-.00790	.31000	.02500	.06200	.03600
1.506	-7.530	-48270	.18160	-.02410	.01900	-.00750	.30800	.02600	.06100	.03500
1.506	-5.340	-33980	.12280	-.02130	.01780	-.00700	.30700	.02600	.06100	.03400
1.506	-3.130	-19980	.06830	-.01910	.01680	-.00650	.30500	.02600	.06100	.03300
1.506	-.980	-.06460	.01730	-.01580	.01510	-.00600	.31300	.02700	.06200	.03400
1.506	1.280	.07580	-.03820	-.01420	.01430	-.00500	.31300	.02700	.06200	.03400
1.506	3.400	.20720	-.09480	-.01200	.01370	-.00400	.31600	.02800	.06300	.03500
1.506	5.620	.33220	-.15800	-.01160	.01330	-.00350	.31100	.02800	.06300	.03400
1.506	7.790	.45640	-.21450	-.01000	.01300	-.00300	.30900	.02900	.06300	.03500
1.506	9.870	.58190	-.25210	-.00770	.01320	-.00250	.29900	.02900	.06300	.03400
1.506	GRADIENT	-.06040	.01690	-.01670	.00160	-.00000	.00015	.00018	-.00041	-.00046

(R01011) (28 JUN 73)

NSFC 566 (IA3:F) MCR 0074 LV 05 T9 S3

REFERENCE DATA

SREF = 6.1980 SQ. IN XREF = 2.5480 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 BREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0246

BETA = .000 CONFIG = 1.000
 DELTAZ = .136 RUBBER = -20.000
 X-SIB = .000 ORSINC = .500

PARAMETRIC DATA

RUN NO. 19/ 0 RVOL = 5.10 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CN	CLM	CY	CYN	CBL	CAF	CBO	CABO	CASS	CABE
4.999	-10.940	-.47370	.18780	-.01860	.01280	-.00530	.29100	.00220	.00210	.00870	.00500
4.998	-8.980	-.40120	.16220	-.01640	.01190	-.00500	.27950	.00220	.00200	.00870	.00490
4.997	-6.970	-.32890	.13590	-.01610	.01130	-.00430	.26100	.00220	.00190	.00870	.00480
4.996	-4.940	-.25240	.11070	-.01000	.00940	-.00350	.24800	.00220	.00180	.00870	.00470
4.995	-2.970	-.17620	.08130	-.00980	.00880	-.00370	.24700	.00220	.00180	.00870	.00460
4.994	-.870	-.11110	.06130	-.00990	.00860	-.00300	.23300	.00220	.00180	.00870	.00450
4.993	1.200	-.04200	.04400	-.00730	.00780	-.00280	.22900	.00220	.00180	.00870	.00440
4.992	3.210	.03410	.01390	-.00910	.00690	-.00200	.21700	.00220	.00180	.00870	.00430
4.991	5.220	.11600	-.02450	-.00680	.00670	-.00300	.21000	.00220	.00180	.00870	.00420
4.990	7.280	.19490	-.05910	-.00690	.00740	-.00220	.20700	.00220	.00180	.00870	.00410
4.989	9.210	.27910	-.08670	-.00620	.00690	-.00220	.20400	.00220	.00180	.00870	.00400
4.988	-.870	-.10740	.06120	-.00760	.00740	-.00320	.20400	.00220	.00180	.00870	.00390
4.987		.03465	-.01129	.00021	-.00229	.00210	-.00309	.00220	.00215	-.00300	-.00300

GRADIENT

DATE 23 AUG 73

TABULATED SOURCE DATA NSFC TWT-566

NSFC 566 (IASIF) XCR 5074 LV Q3 T9 S3

(R81012) (25 JUN 73)

REFERENCE DATA

SREF = 6.1960 SQ. IN XREF = 2.5493 IN.
 LREF = 5.3135 IN. YREF = .0020 IN.
 BREF = 5.3130 IN. ZREF = .0020 IN.
 SCALE = .0040

PARAMETRIC DATA

ALPHA = .001 CONF16 = 1.000
 DELTAZ = .136 BLODER = -20.000
 X-SIG = .000 OFFINC = .500

RUN NO. 74/ 0 RVAL = 4.87 GRADIENT INTERVAL = -5.00/ 5.00

MEMO	BETA	ON	CLN	CY	CYN	CL	CAF	CBO	CABO	CABS	CACE
.505	-10.680	-.03100	-.03610	.41480	-.17320	.04970	.05600	.01000	.05100	.13000	.05900
.505	-8.880	-.03240	-.03390	.34280	-.13990	.03900	.06800	.01000	.04900	.12500	.05700
.505	-6.880	-.03300	-.03170	.25600	-.10200	.02770	.08200	.01000	.04800	.11000	.05800
.505	-4.880	-.03490	-.02540	.17770	-.06220	.01690	.09100	.01000	.04500	.09000	.05700
.505	-2.780	-.03600	-.02210	.08480	-.02500	.00430	.09200	.01000	.04600	.07600	.05700
.505	-1.780	-.03690	-.01870	-.00790	.02230	-.02490	.08200	.01000	.04800	.06000	.05800
.505	1.380	-.03420	-.02280	-.10920	.06800	-.02110	.07000	.01000	.04900	.04000	.05900
.505	3.480	-.02120	-.02620	-.19290	.10780	-.03310	.05000	.01000	.04800	.01000	.05800
.505	5.410	-.01110	-.03400	-.27620	.14730	-.04480	.03900	.01000	.05300	.00800	.05400
.505	7.480	-.00710	-.03680	-.35480	.18000	-.05390	.02900	.01000	.06400	.00000	.05000
.505	9.410	-.00320	-.04200	-.42220	.20570	-.06200	.01900	.01000	.08000	-.00200	.04500
.505	-1.730	-.00340	-.04070	-.00790	.02390	-.05490	.00117	-.02000	.08315	-.00127	.05200
.505	GRADIENT	.00133	-.03700	-.04547	.02080	-.01610					

RUN NO. 75/ 0 RVAL = 6.15 GRADIENT INTERVAL = -5.00/ 5.00

MEMO	BETA	ON	CLN	CY	CYN	CL	CAF	CBO	CABO	CABS	CACE
.505	-11.000	-.07000	-.00700	.46810	-.20280	.05410	.09700	.01000	.05800	.13400	.06800
.505	-9.010	-.03700	-.01390	.36040	-.17790	.04620	.10600	.01000	.05400	.12700	.06400
.505	-6.900	-.04600	-.02270	.30800	-.13860	.03490	.11600	.01000	.05000	.12000	.06000
.505	-4.880	-.05200	-.02310	.21990	-.09800	.02410	.12900	.01000	.05200	.11200	.05800
.505	-2.780	-.05000	-.02270	.11920	-.04710	.01060	.13900	.01000	.05100	.10400	.05900
.505	-1.710	-.04400	-.02040	.01060	.00000	-.00060	.13400	.01000	.05200	.09800	.05200
.505	1.380	-.03800	-.02710	-.09770	.06000	-.01680	.12600	.01000	.05300	.08900	.05000
.505	3.480	-.03000	-.03210	-.20100	.11340	-.03390	.11900	.01000	.05400	.07900	.04700
.505	5.480	-.02300	-.03480	-.29970	.16390	-.04780	.10900	.01000	.06100	.06700	.04100
.505	7.580	-.01480	-.03100	-.38680	.20470	-.05600	.12700	.01000	.06300	.05000	.03800
.505	9.560	-.00000	-.02300	-.46800	.24040	-.06840	.13100	.01000	.06500	.03000	.03400
.505	-1.710	-.04570	-.02390	.01320	.00000	-.00360	.14200	.01000	.05100	.09000	.04000
.505	GRADIENT	.00063	-.00107	-.05061	.02534	-.02086	.02243	-.00000	.02024	-.00015	.02000

DATE 25 AUG 75

TABULATED SOURCE DATA NSFC TWT-566

(RAT012) (28 JUN 75)

NSFC 566 (1A31F) MCR 5074 LV 05 T9 S3

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1940 SQ. IN XREF = 2.5400 IN.
 LREF = 5.3130 IN. YREF = .0070 IN.
 BREF = 5.3130 IN. ZREF = .0070 IN.
 SCALE = .0240

ALPHA = .000 CONVIG = 1.000
 DELTAZ = .000 FLOOR = -50.000
 X-SE3 = .000 ONEINC = .500

RUN NO. 76/ 0 SVAL = 6.52 GRADIENT INTERVAL = -5.00/ 5.00

NUON	BETA	CN	CLM	CY	CYN	CL	CAF	CBO	CABO	CABS	CASE
1.000	-11.090	-0.0390	-0.0100	.69100	-.21643	.08590	.20500	.01200	.05500	.14800	.06000
1.000	-9.040	-.03200	-.01270	.59540	-.17940	.05310	.21600	.01200	.05500	.14500	.06000
1.000	-6.990	-.01000	-.02230	.30720	-.14090	.04020	.22100	.01200	.05500	.13900	.05800
1.000	-4.890	-.01000	-.02360	.21340	-.09980	.02570	.24100	.01200	.05500	.13200	.05400
1.000	-2.770	-.00970	-.02490	.11090	-.05070	.01140	.24400	.01200	.05500	.12600	.04900
1.000	-.710	-.01040	-.02330	.01310	-.02070	-.02400	.24700	.01200	.05500	.12000	.04600
1.000	1.390	-.01030	-.02090	-.09560	.06040	-.01930	.25100	.01200	.05500	.11700	.04500
1.000	3.470	.00360	-.02830	-.19590	.11370	-.03560	.25600	.01200	.05500	.11400	.04500
1.000	5.480	.00560	-.02770	-.29150	.16420	-.03240	.26000	.01300	.06400	.11000	.04500
1.000	7.630	-.00010	-.02120	-.39220	.20890	-.06780	.24700	.01300	.06400	.10700	.04500
1.000	9.620	-.00770	-.01490	-.47790	.24390	-.06310	.23800	.01200	.05900	.10300	.04500
1.000	-.720	-.01030	-.02290	.01590	.03020	-.02430	.24500	.01200	.05900	.10000	.04500
1.000		.00157	-.02034	-.04638	.02571	-.00796	.00177	-.00000	.00004	-.00009	.00000

RUN NO. 77/ 0 SVAL = 6.67 GRADIENT INTERVAL = -5.00/ 5.00

NUON	BETA	CN	CLM	CY	CYN	CL	CAF	CBO	CABO	CABS	CASE
1.240	-11.150	-.03900	-.02000	.48460	-.19910	.06010	.25600	.01100	.05400	.12800	.06000
1.240	-9.110	-.03200	-.01960	.36190	-.15790	.05390	.26000	.01100	.05300	.12700	.06000
1.240	-6.990	-.03170	-.01780	.26620	-.12760	.03900	.27000	.01100	.05400	.12600	.05900
1.240	-4.910	-.03390	-.01210	.19300	-.08130	.02480	.27300	.01100	.05400	.12500	.05900
1.240	-2.800	-.03300	-.00660	.09660	-.03410	.00940	.27700	.01100	.05400	.12300	.05400
1.240	-.720	-.03840	-.00490	-.00310	.01570	-.00810	.27800	.01100	.05600	.11900	.05700
1.240	1.400	-.02810	-.007910	-.10230	.06990	-.02190	.28400	.01100	.05800	.11600	.05400
1.240	3.480	-.01920	-.01230	-.19740	.11210	-.03710	.28600	.01200	.05700	.11300	.05400
1.240	5.540	-.00860	-.01080	-.26670	.15070	-.05190	.28800	.01200	.05800	.11000	.05400
1.240	7.660	-.00530	-.02130	-.36790	.18730	-.06610	.29000	.01200	.06000	.10700	.05400
1.240	9.700	-.00410	-.02260	-.47570	.21900	-.08000	.27900	.01200	.06000	.10400	.05500
1.240	-.750	-.03360	-.00790	-.00230	.01310	-.00670	.27700	.01100	.05600	.10100	.05500
1.240		.00175	-.00203	-.04672	.02580	-.00753	.00157	.00000	.00009	-.00009	.00000

GRADIENT

DATE 25 AUG 73

TABULATED SOURCE DATA NSFC TWP-566

NSFC 566 (1431F) MCR 7074 LV 03 19 53

(22 AUG 73)

REFERENCE DATA

WHP = 6.1940 IN. YHP = 2.5490 IN.
 LHP = 5.3130 IN. YHP = .0220 IN.
 WHP = 5.3130 IN. ZHP = .0720 IN.
 SCALE = .0040

ALPHA = .000
 DELTA Z = .000
 X-SYS = .000

PARAMETRIC DATA

RUN NO. 44/ 0 RVL = 0.56 GRADIENT INTERVAL = -5.00/ 5.00

WHP	BETA	ON	QJM	CT	CYN	CEL	CAF	CSD	CAS	CASE
1.453	-11.170	-0.0040	-0.0370	.50700	-.25800	.08840	.28120	.07300	.00270	.04700
1.453	-9.140	-0.00410	-0.03300	.39330	-.16160	.05470	.29270	.07300	.00270	.04700
1.453	-7.080	-0.01030	-0.02980	.29310	-.12340	.03670	.29470	.07300	.00270	.04700
1.453	-4.900	-0.03310	-0.02440	.19780	-.08390	.02420	.29570	.07300	.00270	.04700
1.453	-2.780	-0.00570	-0.02390	.10660	-.05980	.01060	.29970	.07300	.00270	.04700
1.453	-.780	-0.00080	-0.02390	.01760	.00120	-.03210	.30170	.07300	.00270	.04700
1.453	1.470	.00360	-0.02320	-.06960	.04130	-.01510	.30170	.07300	.00270	.04700
1.453	3.460	.00530	-0.02440	-.15510	.08050	-.02830	.30370	.07300	.00270	.04700
1.453	5.540	.01300	-0.02980	-.24590	.12010	-.04250	.30770	.07300	.00270	.04700
1.453	7.680	.01670	-0.03310	-.34250	.15720	-.05720	.31670	.07300	.00270	.04700
1.453	9.680	.08830	-0.03940	-.43970	.19340	-.07130	.35470	.07300	.00270	.04700
1.453	-.780	.00270	-0.0259	.02120	-.00170	-.03270	.30370	.07300	.00270	.04700
1.453	GRADIENT	.00127	.0007	-.04159	.01922	-.00822	.00126	.00000	-.00195	.00254

RUN NO. 32/ 0 RVL = 0.91 GRADIENT INTERVAL = -5.00/ 5.00

WHP	BETA	ON	QJM	CT	CYN	CEL	CAF	CSD	CAS	CASE
1.508	-11.280	-0.00740	-0.01740	.50820	-.25390	.08130	.29270	.07300	.00270	.04700
1.508	-9.160	-0.00460	-0.01340	.39320	-.16050	.04720	.30370	.07300	.00270	.04700
1.508	-7.050	-0.01980	-0.00850	.29460	-.12290	.03410	.34270	.07300	.00270	.04700
1.508	-4.900	-0.03840	-0.02220	.19710	-.07940	.02070	.31170	.07300	.00270	.04700
1.508	-2.800	-0.00590	-0.00320	.10450	-.03660	.01400	.31170	.07300	.00270	.04700
1.508	-.750	-0.00740	-0.00800	.01940	-.02060	-.00290	.31370	.07300	.00270	.04700
1.508	1.410	-0.03320	-0.02940	-.06460	.03370	-.01270	.31470	.07300	.00270	.04700
1.508	3.460	-0.02740	-0.02360	-.13190	.07310	-.02360	.32170	.07300	.00270	.04700
1.508	5.600	-0.01620	-0.01750	-.24570	.11590	-.03690	.31370	.07300	.00270	.04700
1.508	7.720	-0.00940	-0.01710	-.34570	.15860	-.05090	.31170	.07300	.00270	.04700
1.508	9.770	-0.0040	-0.02420	-.44470	.19430	-.06360	.27170	.07300	.00270	.04700
1.508	-.750	-0.03920	-0.00990	.01970	.03200	-.00290	.29670	.07300	.00270	.04700
1.508	GRADIENT	.00060	.00066	-.04106	.01776	-.00516	.00108	-.00000	-.00195	.00254

DATE 23 AUG 73

TABULATED SOURCE DATA MSFC TWT-566

MSFC 566 (IASIF) MCR 1074 LV 05 19 53

PRINTED 1 28 JUN 73

REFERENCE DATA

SREF = 6.1960 IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0000 IN.
 ZREF = 5.3130 IN. ZREF = .0000 IN.
 SCALE = .0340

ALPHA =
 DELTAZ =
 X-SES =

CONV = 1.000
 ORDER = -0.000
 DINC = .010

PARAMETRIC DATA

RUN NO. 20/ 0 RML = 5.04 GRADIENT INTERVAL = -5.00/ 5.00

WAOH	BETA	CN	CLM	CV	CYN	COL	CAF	COB	CABO	CACS	CADE
4.926	-10.710	-0.0610	.06480	.36370	-.11600	.04130	.26820	.00000	.00400	.00000	.00000
4.926	-8.780	-0.09320	.05890	.28870	-.12300	.03010	.25970	.00000	.00400	.00000	.00000
4.926	-6.750	-0.08010	.05760	.21640	-.09260	.02180	.25070	.00000	.00400	.00000	.00000
4.926	-4.710	-0.06070	.05870	.19090	-.06410	.01230	.24570	.00000	.00400	.00000	.00000
4.926	-2.680	-0.06760	.05480	.08480	-.03560	.00320	.23870	.00000	.00400	.00000	.00000
4.926	-.080	-0.06080	.05330	.02520	-.01690	.00000	.23570	.00000	.00300	.00000	.00000
4.926	1.360	-0.06440	.05350	-.04610	.02630	-.01710	.23570	.00000	.00300	.00000	.00000
4.926	3.370	-0.06870	.05320	-.11160	.05530	-.01320	.24100	.00000	.00400	.00000	.00000
4.926	5.370	-0.08220	.05420	-.17550	.08260	-.02190	.24670	.00000	.00400	.00000	.00000
4.926	7.420	-0.08260	.05710	-.24720	.11340	-.03060	.25300	.00000	.00400	.00000	.00000
4.926	9.340	-0.07940	.05940	-.31870	.14630	-.04090	.26100	.00000	.00400	.00000	.00000
4.926	-.080	-0.08410	.05240	-.02320	-.01630	-.01040	.23370	.00000	.00400	.00000	.00000
4.926		.00072	-.01137	-.03242	.01486	-.00315	-.02054	.00000	-.01005	.00000	-.01005

GRADIENT

DATE 25 JUL 73

TABULATED SOURCE DATA WFC 747-566

WFC 566 (IASIF) FOR 0074 LV 03 19 53 '65

NR61013 (31 JUL 73)

PARAMETRIC DATA

REFERENCE DATA

SREF = 6.1940 SA. IN XREF = 2.5490 IN.
 LREF = 5.3130 IN. YREF = .0770 IN.
 BREF = 5.3130 IN. ZREF = .0770 IN.
 SCALE = .0740

BETA = .020 CONFID = 2.000
 DELTA Z = .136 RUPPER = .000
 X-SIG = .000 ORBINC = .000

RUN NO. 1/0 RVL = 4.89 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CH	CLM	CY	CYN	CEL	CAF	COO	CAD	CAS	CAB
.000	-11.140	-6.0140	.20260	.00390	-.00880	.00190	.09700	.01000	.00200	.12270	.06870
.000	-9.130	-.47990	.15410	.00300	-.00150	.00180	.10300	.01000	.00200	.11870	.06300
.000	-7.080	-.34110	.10790	.00340	-.00150	.00190	.11670	.01000	.00200	.10700	.06700
.000	-5.010	-.23800	.08130	.00360	-.00090	.00110	.12250	.01000	.00200	.10700	.06300
.000	-2.950	-.14170	.01130	-.00330	.00330	.00070	.12700	.01000	.00200	.10700	.06300
.000	-.860	-.02150	-.07830	.00080	.00200	.00140	.12700	.01000	.00200	.10700	.06300
.000	1.200	.00590	-.07830	-.00430	.00060	.00140	.12700	.01000	.00200	.10700	.06300
.000	3.250	.20590	-.11630	-.00930	.00060	.00100	.11200	.01000	.00200	.11100	.06300
.000	5.350	.30910	-.19330	-.00780	.00060	.00120	.10800	.01000	.00200	.11970	.06300
.000	7.400	.43970	-.21800	-.01270	.00070	.00080	.09870	.01000	.00200	.11700	.06300
.000	9.350	.55410	-.26910	-.01790	.01300	.0010	.09100	.01000	.00200	.11700	.06300
.000	-.860	-.02170	-.03080	-.00690	.00030	.00030	.12800	.01000	.00200	.11800	.06300
.000	.06570	.00060	-.02060	-.00084	.00146	.00204	-.00111	-.00019	-.00029	-.00024	-.00047

GRADIENT

RUN NO. 2/0 RVL = 6.18 GRADIENT INTERVAL = -5.00/ 5.00

WCH	ALPHA	CH	CLM	CY	CYN	CEL	CAF	COO	CAD	CAS	CAB
.000	-11.400	-.60880	.23980	-.01910	.01170	-.00100	.10300	.01100	.00500	.09700	.07900
.000	-9.370	-.51150	.17290	-.01850	.01080	-.00060	.10700	.01100	.00500	.09800	.07800
.000	-7.280	-.38090	.12130	-.01480	.00930	-.00120	.16070	.01100	.00500	.09800	.06800
.000	-5.130	-.25480	.08570	-.01550	.01000	-.00080	.17100	.01100	.00500	.09800	.06300
.000	-3.080	-.12280	.00050	-.01310	.00810	-.00060	.17000	.01100	.00500	.09800	.06300
.000	-.910	.02130	-.05340	-.01650	.01080	-.00040	.17000	.01100	.00500	.09800	.06300
.000	1.250	.11710	-.10100	-.01910	.01080	-.00140	.16700	.01100	.00500	.09800	.06300
.000	3.250	.25940	-.14600	-.01950	.01180	-.00140	.16000	.01100	.00500	.09800	.06300
.000	5.400	.34480	-.17310	-.01850	.01220	-.00140	.15000	.01100	.00500	.09800	.06300
.000	7.500	.47560	-.23750	-.01850	.01220	-.00130	.15200	.01100	.00500	.09800	.06300
.000	.900	.56970	-.29770	-.02140	.01520	-.00130	.15200	.01100	.00500	.09800	.06300
.000	-.900	.01110	-.08000	-.01350	.01010	-.00040	.17200	.01100	.00500	.09800	.06300
.000	.05800	.00000	-.02000	-.00057	.00047	-.00004	-.00179	-.00000	-.00000	.00000	-.00004

TRANSMITTED SOURCE DATA MSGC TW-568

MSFC 586 (IA32F) MCR 5274 LV 08 79 53 US

VIEWING DATA

SOUP	=	6.1900 IN	WFF	=	2.5690 IN.
LEAF	=	5.3130 IN.	WBP	=	.0720 IN.
SOUP	=	5.3130 IN.	ZBP	=	.0720 IN.
SCALE	=	.0760			

SAFETY-TRIC DATA

57A	=	1.00	CONF6	=	2.000
57IAZ	=	1.36	CONF7	=	1.000
57IBR	=	1.000	CONF8	=	1.500

---0 ENL = 6.49 GRADIENT INTERVAL = -5.22/ 5.00

[illegible]

$\Delta T = 0.03$ CALORIM INTERVAL = -5.00/ 5.00

[illegible]

DATE 25 AUG 75

TABULATED SOURCE DATA NSFC TMT-566

NSFC 566 (1A3:5F) WFS 0276 LV 08 19 53 US

PAGE 54

REVISION 1 28 JUN 75

PARAMETRIC DATA

REFERENCE DATA

SHEP = 6.1967 90. IN XMRP = 2.5490 IN.
 LREF = 5.3130 IN. YMRP = .0270 IN.
 BREF = 5.3130 IN. ZMRP = .0270 IN.
 SCALE = .0240

XMRP = .0000
 YMRP = .0000
 ZMRP = .0000

RUN NO. 810 RVL = 4.97 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	ON	CLM	CY	CYN	CEL	CAF	ONB	CAD	CAS	CAE
.003	-10.870	.02740	-.05980	.45790	-.23710	.06430	.083100	.01100	.04700	.02600	.00000
.003	-8.840	.02670	-.05780	.38290	-.17570	.05470	.09020	.01300	.04600	.02400	.00000
.003	-6.820	.02690	-.05920	.30470	-.14090	.04290	.11370	.01300	.04400	.02200	.00000
.003	-4.780	.03090	-.05750	.23540	-.10740	.03350	.13370	.01300	.04300	.02000	.00000
.003	-2.740	.03720	-.05790	.14290	-.06710	.02190	.12600	.01300	.04200	.01800	.00000
.003	-.770	.02730	-.05470	.05270	-.02410	.01330	.13370	.01300	.04100	.01600	.00000
.003	1.340	.03210	-.05610	-.05380	.02540	-.03690	.13370	.01300	.04000	.01400	.00000
.003	3.370	.02880	-.05440	-.14120	.06910	-.01930	.13220	.01300	.03900	.01200	.00000
.003	5.400	.03370	-.05540	-.22770	.10990	-.03200	.13400	.01300	.03800	.01100	.00000
.003	7.450	.03270	-.05760	-.30470	.14870	-.04330	.12720	.01300	.03700	.01000	.00000
.003	9.390	.03450	-.05650	-.38650	.17970	-.05380	.12870	.01300	.03600	.00900	.00000
.003	-.770	.02450	-.05150	.05230	-.02430	.01220	.12940	.01300	.03500	.00800	.00000
.003	GRADIENT	-.02111	.02339	-.04587	.02186	-.02659	.02221	.02375	.02120	.01930	.00000

RUN NO. 710 RVL = 6.17 GRADIENT INTERVAL = -5.00/ 5.00

WCH	BETA	ON	CLM	CY	CYN	CEL	CAF	ONB	CAD	CAS	CAE
.006	-10.990	.01180	-.04060	.51020	-.23830	.07130	.12870	.01100	.05200	.02600	.00000
.006	-8.960	.02350	-.05520	.43150	-.20720	.06180	.13770	.01200	.05220	.02500	.00000
.006	-6.910	.03780	-.06880	.34770	-.16940	.04920	.15470	.01200	.04770	.02300	.00000
.006	-4.870	.03410	-.07200	.25640	-.12790	.03670	.16770	.01200	.04600	.02100	.00000
.006	-2.770	.03780	-.06780	.15660	-.07910	.02330	.16170	.01200	.04500	.01900	.00000
.006	-.710	.02640	-.06610	.05360	-.05680	.01850	.16530	.01200	.04400	.01700	.00000
.006	1.360	.03110	-.06430	-.05750	.03380	-.01750	.17400	.01200	.04300	.01500	.00000
.006	3.430	.03790	-.06380	-.16140	.08520	-.02180	.17870	.01200	.04200	.01400	.00000
.006	5.500	.03160	-.06700	-.25840	.13280	-.03350	.17570	.01200	.04100	.01300	.00000
.006	7.570	.03550	-.06720	-.34890	.17470	-.04770	.17770	.01200	.04000	.01200	.00000
.006	9.520	.02400	-.05290	-.43130	.21220	-.05820	.17300	.01200	.03900	.01100	.00000
.006	-.710	.03370	-.06810	-.05390	-.02680	.01820	.16730	.01200	.03800	.01000	.00000
.006	GRADIENT	-.00036	.00077	-.05093	.02610	-.02713	.02217	-.00170	.01130	.00136	.00000

DATE 25 AUG 70

TABULATED SOURCE DATA USFC 7-1456

USFC 46 (2435F) 001 0074 LV 00 19 55 15

100 35

000000 000000

000000 DATA

REFERENCE DATA

SHEF = 6.198" SQ. IN. WGT = 2.560 IN.
 LREF = 5.3120 IN. YREF = 1.000 IN.
 BREF = 5.3135 IN. ZREF = 1.000 IN.
 SCALE = .0040

RUN NO. 6/ 0 RNL = 6.46 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	COL	CAF	CAD	CMS	CATE
1.047	-11.150	.02170	-.06260	.53240	-.25750	.04480	.22800	.01210	.12250	.78000
1.047	-9.010	.03750	-.05070	.43590	-.21490	.06710	.24800	.01250	.12700	.78000
1.047	-6.940	.04650	-.04510	.33750	-.17110	.09350	.26300	.01290	.12800	.78000
1.047	-4.840	.05280	-.03970	.24780	-.12930	.12370	.26300	.01330	.12800	.78000
1.047	-2.790	.05270	-.03870	.15840	-.08210	.15440	.24900	.01370	.12800	.78000
1.047	.710	.05110	-.03670	.06870	-.02550	.18740	.22800	.01410	.12800	.78000
1.047	1.370	.05100	-.03110	-.06360	.03810	.22040	.20800	.01450	.12800	.78000
1.047	3.410	.05400	-.02830	-.16480	.09350	.25570	.20800	.01490	.12800	.78000
1.047	5.310	.05220	-.02530	-.25970	.14790	.28420	.20800	.01530	.12800	.78000
1.047	7.990	.04180	-.02370	-.35650	.18680	.30620	.20800	.01570	.12800	.78000
1.047	9.570	.03720	-.02290	-.44620	.22340	.31670	.20800	.01610	.12800	.78000
1.047	-7.710	.03410	-.02070	.03510	-.02840	.30730	.20800	.01650	.12800	.78000
1.047	GRADIENT	.02720	-.02000	-.05045	.02730	-.02795	.20800	.01690	.12800	.78000

RUN NO. 5/ 0 RNL = 6.62 GRADIENT INTERVAL = -5.00/ 5.00

MACI	BETA	ON	CLM	CY	CYN	COL	CAF	CAD	CMS	CATE
1.249	-11.140	.04260	-.06490	.53180	-.22860	.07920	.24320	.01120	.12250	.78000
1.249	-9.110	.04990	-.06070	.42520	-.18590	.06530	.29520	.01170	.12700	.78000
1.249	-6.980	.04330	-.05920	.32670	-.15240	.05140	.31400	.01200	.12800	.78000
1.249	-4.870	.04110	-.05310	.23040	-.11160	.03710	.31400	.01230	.12800	.78000
1.249	-2.760	.04180	-.05210	.13590	-.06730	.02210	.30300	.01270	.12800	.78000
1.249	.710	.04780	-.05000	.03680	-.01660	.05580	.28200	.01300	.12800	.78000
1.249	1.390	.04790	-.05460	-.06410	.03750	.08180	.26200	.01340	.12800	.78000
1.249	3.460	.04770	-.05400	-.15990	.08390	.10670	.24200	.01380	.12800	.78000
1.249	5.590	.04700	-.05190	-.25440	.12830	.13420	.22200	.01420	.12800	.78000
1.249	7.670	.05030	-.05680	-.35470	.17250	.15770	.20200	.01460	.12800	.78000
1.249	9.670	.05080	-.05860	-.44580	.20320	.17790	.18200	.01500	.12800	.78000
1.249	-7.710	.04760	-.05570	.03510	-.01540	.08070	.26200	.01540	.12800	.78000
1.249	GRADIENT	.02030	-.02020	-.04754	.02380	-.02771	.20197	.01584	.12800	.78000

REFERENCE DATA

SPT = 8.1900 IN. WPT = 2.5490 IN.
 LPT = 5.3130 IN. WPT = .0000 IN.
 SPT = 5.3130 IN. WPT = .0000 IN.
 SCALE = .0040

RUN NO. 9/ 5 RVL = 7.04 GRADIENT INTERVAL = -5.00/ 5.00

WPT	STA	CN	CLN	CY	CYN	CEL	CAF	CNO	CAD	CDS	CDE
1.953	11.240	.01800	-.04480	.52320	-.22120	.07240	.34020	.07220	.07120	.07400	.07500
1.953	9.180	.01820	-.04160	.47560	-.17520	.05330	.32320	.07530	.07200	.07320	.07320
1.953	7.040	.01150	-.03710	.30160	-.13020	.04070	.31900	.07000	.07200	.07300	.07300
1.953	4.900	.01090	-.03460	.20720	-.08880	.02680	.32700	.07000	.07100	.07200	.07200
1.953	2.820	.01310	-.03420	.11500	-.04610	.01360	.33900	.07000	.07100	.07200	.07200
1.953	.720	.01540	-.03540	.03960	-.01190	.01220	.34200	.07000	.07100	.07200	.07200
1.953	1.420	.01680	-.03620	-.05540	.02540	-.01890	.34600	.07000	.07100	.07200	.07200
1.953	3.480	.02230	-.03960	-.14760	.08190	-.02090	.35120	.07000	.07100	.07200	.07200
1.953	5.800	.02480	-.04320	-.23770	.15430	-.03430	.35200	.07000	.07100	.07200	.07200
1.953	7.750	.02680	-.04680	-.33940	.14800	-.04950	.35500	.07000	.07100	.07200	.07200
1.953	9.780	.03090	-.05290	-.44120	.18780	-.06330	.35400	.07000	.07100	.07200	.07200
1.953	.720	.03220	-.05320	.03120	-.01170	.00190	.33000	.07000	.07100	.07200	.07200
1.953	.00130	-.03050	-.04116	.01778	-.01557	.07280	.07280	.07280	.07280	.07280	.07280

RUN NO. 12/ 0 RVL = 4.99 GRADIENT INTERVAL = -5.00/ 5.00

WPT	STA	CN	CLN	CY	CYN	CEL	CAF	CNO	CAD	CDS	CDE
1.953	10.780	-.04940	.05480	.37530	-.16770	.04480	.27820	.07220	.07420	.07600	.07600
1.953	8.780	-.04850	.04820	.29390	-.13190	.03390	.26800	.07220	.07420	.07600	.07600
1.953	6.780	-.04810	.04640	.22530	-.09870	.02420	.26000	.07220	.07420	.07600	.07600
1.953	4.710	-.07980	.04510	.15370	-.06690	.01770	.25920	.07220	.07420	.07600	.07600
1.953	2.680	-.08050	.04340	.08680	-.03910	.00740	.24720	.07220	.07420	.07600	.07600
1.953	.680	-.07720	.04220	.02120	-.00970	.00190	.24420	.07220	.07420	.07600	.07600
1.953	1.350	-.07750	.04220	-.04810	.02220	-.00580	.24420	.07220	.07420	.07600	.07600
1.953	3.350	-.07410	.04470	-.10790	.09280	-.01370	.23720	.07220	.07420	.07600	.07600
1.953	5.350	-.07480	.04480	-.17560	.08040	-.02140	.23520	.07220	.07420	.07600	.07600
1.953	7.420	-.07570	.04590	-.25110	.11250	-.03080	.23120	.07220	.07420	.07600	.07600
1.953	9.320	-.07720	.04630	-.32280	.14460	-.04060	.22820	.07220	.07420	.07600	.07600
1.953	.680	-.07350	.04580	.02350	-.01070	.00120	.24220	.07220	.07420	.07600	.07600
1.953	.00071	.00071	-.00000	-.03228	.01470	-.00343	.07085	.07085	.07085	.07085	.07085

GRADIENT